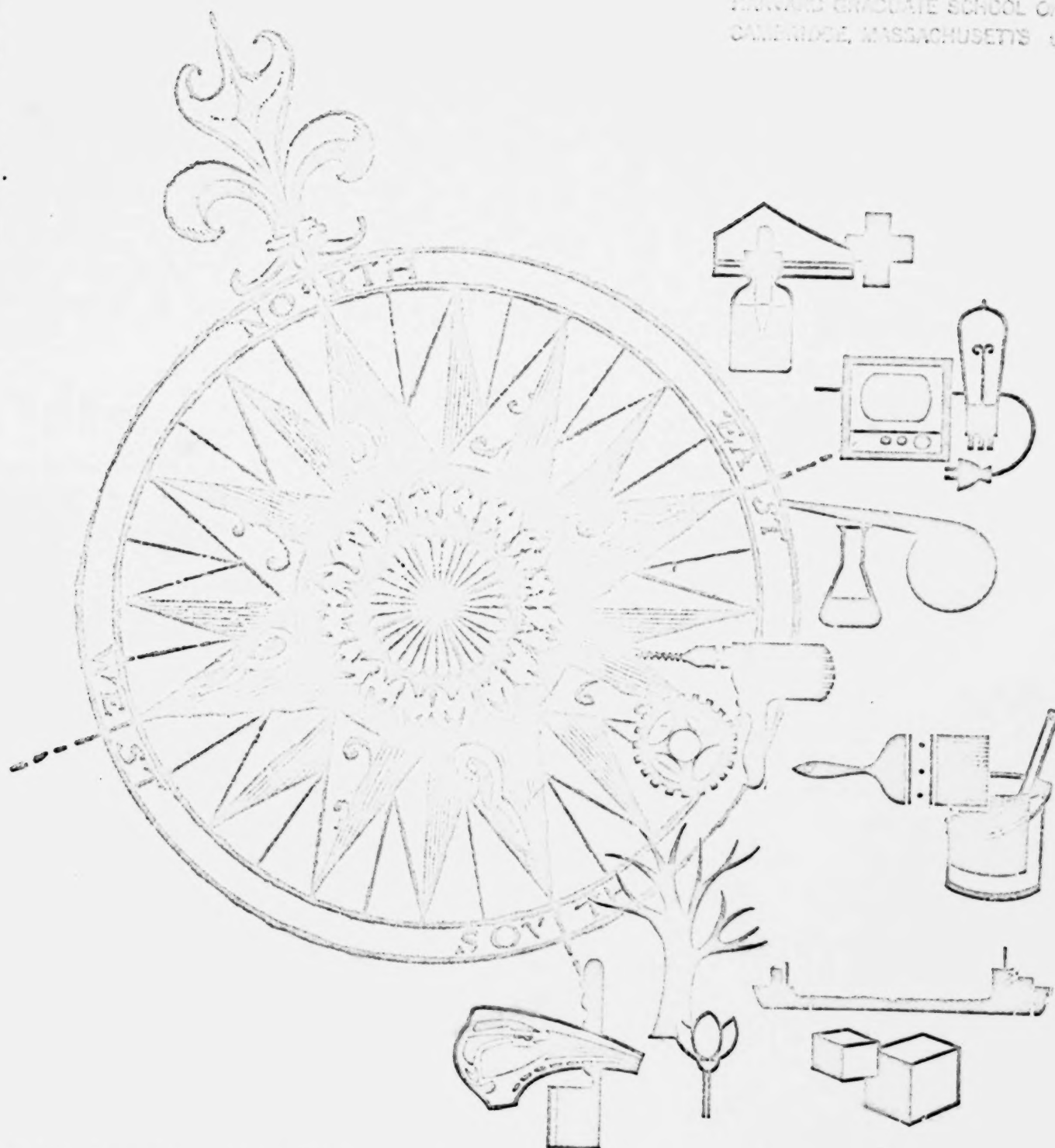


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A committee was assigned to evaluate the programs preparing students for employment. Major criticism was leveled at both the inconsistency and inadequacy of many school programs. One of the most critical needs was the improvement of counseling and guidance services available to students. Schools tended to downgrade vocational courses and create poor attitudes by differentiating between college preparatory and vocational courses. Some students felt encouraged to drop out because they were not academically inclined. It is recommended that all curricula recognize those elements which have significant bearing on employability and effective performance in job situations. Efforts should be made to bridge the gap between academic and vocational curricula. Ability grouping is necessary for challenging the needs of every student. Guidance should be intensified and expanded. Case work in elementary schools and complete records would help prevent later school dropouts. The junior high student should be allowed to explore many experiences and should have regular counseling. Senior high students need complete information on career opportunities and preparation. World-of-Work Services, including vocational education and work-study plans, need to be expanded to include girls and mentally retarded students. Adult education programs in high school and post-high school technical training programs should be initiated.						
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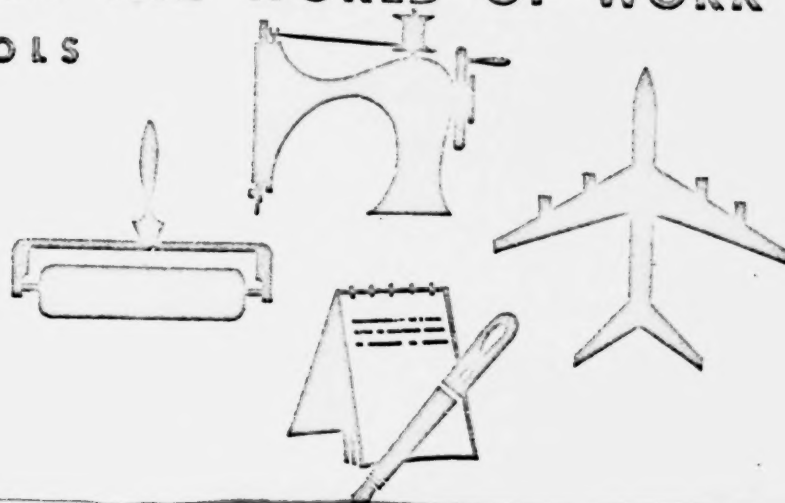
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PREPARING PUPILS FOR THE WORLD OF WORK

DETROIT PUBLIC SCHOOLS



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Foreword:

THE SCHOOL AND PREPARATION FOR THE WORLD OF WORK

Preparation of pupils for the world of work is one part of school responsibility. It is an increasingly important part. Parents and employers formerly provided supervised initiation into many types of work experience; today in most cases they do not or cannot do this. An increasingly larger proportion of work opportunities require types of preparation that can be given in schools; and the preparation required grows more extensive.

Several years ago the superintendents and school board members of the Great Cities began a study of vocational education needs in these very large cities. About the same time a study of the future of Cass Technical High School had been started in Detroit. Also, study of the school building needs in Detroit showed that additional high school buildings would have to be constructed. The superintendent asked the Cass committee, which already had made preliminary studies, to broaden its scope and to consider thoroughly all phases of school responsibility as they related to preparation of all pupils for the world of work. He requested that the committee make this broad approach, because in the minds of many the term "vocational education" had a restricted meaning, whereas the concern of the schools must be for all children. He asked the committee to consider what contribution each part of schooling at each level of development should make, and what contribution it actually did make, to help the individual become an economic asset.

The following background situation was noted. For those who would or should prepare for professional or technically skilled positions, the elementary and secondary schools would be building the foundation knowledge, skills, and attitudes that would be perfected in collegiate and technical institutions. For them, elementary and secondary school preparation for the world of work would be preparatory to the general and the specialized education of higher educational institutions. But for about one-half of the present pupils, entry into the world of work would follow directly upon their leaving the secondary school.

The committee, after much study and discussion, has prepared its report. As I read the document, I was impressed with its importance. It reviews the present vocational program in a very comprehensive manner. It relates all aspects of the school program to a major task of the schools, i.e., preparation for the world of work. It also considers specific problems on which decisions need to be made as plans are developed for school curricula and buildings.

There are some who may be critical of what is presented or the ways in which ideas are stated. They may feel that in some spots the report does not give due credit to the liberal, cultural, civic, and physical development functions of schooling, or that some statements could as well have been framed differently. Others may become concerned with the specificity of some recommendations; for example, the committee carried over an early recommendation of the "Future of Cass" Committee, without relating it to a current six-county study as to how the post-high-school needs of this area can be met without imposing upon the presently under-financed elementary and secondary school budgets. Such criticisms, however, would be incidental to the over-all significance of the report.

The Board of Education spent two meetings as a Committee of the Whole discussing the report. The superintendent presented reactions and recommendations on each of the committee proposals which were the result of conferences he had had with the administrative staff. At the conclusion of these discussions, the Board in regular session approved the report as a whole and took action in reference to each specific recommendation as is noted in the report.

In making copies of this report available to the staff of the school system, I wish to express appreciation to the committee for the work it did; and to indicate my recognition that all of us have much to do, immediately and over a long period, as we proceed to carry out the approved recommendations.

S. M. BROWNELL

Superintendent of Schools

DETROIT SCHOOLS COMMITTEE ON PREPARING PUPILS FOR THE WORLD OF WORK

1960-61

Appointed by the Superintendent of Schools

Roland Fraser, <i>Principal</i>	Washington Trade School
Orvil Heft, <i>Principal</i>	Cass Technical High School
*James Hendrickson, <i>Principal</i>	Wilbur Wright Co-operative High School
Ralph Lee, <i>Principal</i>	Eastern High School
Arthur McGrath, <i>Assistant Superintendent</i>	Detroit Public Schools
Edward McRay, <i>Principal</i>	Pershing High School
Herman Schumacher, <i>Principal</i>	Cody High School
Carl Turnquist, <i>Divisional Director</i>	Vocational Education
Leslie Whale, <i>Assistant Director</i>	Business Education
Robert Branton, <i>Assistant Principal, Secretary</i>	Cass Technical High School
Dr. Carl L. Byerly, <i>Chairman</i>	South District Administrator

Invited Resource Assistants

Gertrude Capps, <i>Supervisor</i>	Home Economics
Bernard Coker, <i>Administrative Assistant</i>	Planning and Building Studies
Ernest Coverdill, <i>Supervisor</i>	Vocational Education
Dr. Estell Curry, <i>Supervisor</i>	Vocational Education
Dr. Richard Dresher, <i>Assistant Director</i>	Guidance
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Roslyn Kane, <i>Senior Assistant</i>	Detroit Commission on Children and Youth
Ann Lind, <i>Supervisor</i>	Retailing Education

Research Assistant

Dr. Elmer Miller, <i>Administrative Assistant to Superintendent</i>	Detroit Public Schools
--	------------------------

Ex-officio Members

Dr. Dean Edmundson, <i>District Administrator</i>	Detroit Public Schools
Dr. Huldah Fine, <i>District Administrator</i>	Detroit Public Schools
Julia McCarthy, <i>District Administrator</i>	Detroit Public Schools
Thomas O. Monroe, <i>District Administrator</i>	Detroit Public Schools
Ormand Moore, <i>District Administrator</i>	Detroit Public Schools
Dr. Dorothy Perry, <i>District Administrator</i>	Detroit Public Schools
Helen Reed, <i>District Administrator</i>	Detroit Public Schools
Dr. Charles Wolfe, <i>District Administrator</i>	Detroit Public Schools

* Charles Strong represented Wilbur Wright during Mr. Hendrickson's illness.

Resource Persons

(Invited to Present Expert Testimony to the Committee)

Dr. Anthony Adinolfi, Assistant Superintendent for School Housing	Detroit Public Schools
Earl L. Bedell, Consultant	Great Cities Program for School Improvement
Nicholas Birta, Principal	Aero Mechanics High School
Paul Bowman, Director	Quincy Youth Development Project Quincy, Illinois
Herman Breithaupt, Department Head, Commercial Foods	Chadsey High School
Miss Margaret Chippi, Head of Cosmetology	Chadsey High School
Wilfred H. Dietzel, Supervisor, Adult Day School	Western High School
John J. Harris, Chief of Trade and Industrial Education	Department of Public Instruction Lansing, Michigan
Theodore Hoover, Department Head, Vocational Education	Cody High School
Mrs. Mildred Jeffrey, Director of Community Relations	International Union, U.A.W.
Mrs. Roslyn Kane, Senior Community Services Assistant	Detroit Commission on Children and Youth
Dr. Melvin Kavieff, Co-ordinator of Apprentice Training	Cass Technical High School
Lisle K. MacKay, Principal	Chadsey High School
Donald McNeill, Director of Apprentice Program	Commonwealth of Canada
Dr. Arnold Meier, Divisional Director of Curriculum Studies	Detroit Public Schools
Harry Nesman, Chief of Agricultural Education	Department of Public Instruction Lansing, Michigan
Earl Phillips, Department Head, Vocational Education	Mumford High School
George Rideout, Executive Director	Institute for Economic Education, Incorporated
Dr. G. Harold Silvius, Professor and Chairman of Industrial Education	Wayne State University
John N. Shouligian, Representative Bureau of Apprenticeship and Training	U. S. Department of Labor Detroit
John L. Simmons, Head of Guidance and Counseling	Michigan Employment Security Commission Detroit
Wayne Stettbacher, General Manager and Secretary	Employers Association of Detroit
L. T. Thomson, Chief of Distributive and Office Education	Department of Public Instruction Lansing, Michigan
Dr. Paul Voelker, Divisional Director, Special Education	Detroit Public Schools
Leslie Whale, Assistant Director, Business Education	Detroit Public Schools
Robert M. Winger, Assistant Superintendent for Vocational Education	Department of Public Instruction Lansing, Michigan

Field Trips and Information Exchange

A word of gratitude is expressed to public school officials in Philadelphia, Denver, and Parma, Ohio, where delegations or representatives of the Committee were graciously received and generously informed about the outstanding "World of Work" programs in these systems. Descriptive materials are acknowledged from the school systems of Milwaukee, Los Angeles, and New York.

Acknowledgments

The two sub-committees who worked long and diligently on this project are deserving of special recognition. One committee, under the direction of Carl Turnquist, concerned itself with world of work opportunities in the schools west of Woodward Avenue. The other committee under the leadership of Roland Fraser examined the present program and made recommendations concerning world of work opportunities in schools east of Woodward Avenue. Three members served on both committees to provide the necessary liaison between them. The final report, however, reflects the judgment of the entire committee.

The committee is especially indebted to Mrs. Roslyn Kane, Senior Research Assistant for the Detroit Commission on Children and Youth, for her sincere interest, her wealth of data and sources of information, and for her indefatigable energy in being of service to the General Committee and as volunteer secretary to both sub-committees.

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Letter of Transmittal

To Dr. S. M. BROWNELL

Superintendent, Detroit Public Schools:

In its final reviewing session, the committee expressed its concern about several items which are covered generally but do not stand out in the report and on which the committee wishes to record its position clearly. Rather than rewrite sections of the report proper, the chairman was instructed to incorporate these ideas in a letter of transmittal to be included.

First, no particular mention is made in the report of the outstanding work presently being done in the Washington Trade School. This should be recognized even though the recommendation of the committee would scatter this program into several centers and convert the building into a center for continuing education. The committee makes this recommendation after a thorough analysis of all facets of the problem, including the isolation of the building itself as a result of expressway construction.

Second, no particular mention is made of the outstanding co-operative education program at Wilbur Wright. This, too, should be recognized, even though the committee recommends a general expansion of co-operative education and work-experience programs in all high schools of the city. It is felt that there may well be a need for one school such as Wilbur Wright to serve the whole city as a co-operative high school within the framework of the general world-of-work program outlined for the city in the Report of the Committee. Also, it is recognized that unique working arrangements may be developed with the new Murray High School which is to be built on adjacent property. No mention is made of the location of the "food preparation center" which is projected to serve satellite school cafeterias. This might well be located in either Wilbur Wright or Phillip Murray High School. In either case it should be looked upon as a logical facility for training students in the many phases of work experience involved in such an operation.

Third, the committee wants to be on record that there is little merit in designating any single course of study in the high school as being "College Preparatory." Quite to the contrary, there are many courses of study in high schools which may lead to college entrance if the proper selection of elective subjects is made and a good scholastic record is maintained. It is generally misleading to call one course "College Prep" and another "Business" or "Vocational" when the evidence is clear that many high school graduates who have followed a business course of study or a vocational course of study or a

general course of study are admitted each year to the colleges of their choice and make good records in higher education.

Fourth, no special recognition is given to world-of-work education for girls. The committee is of the opinion that all students should have the same privileges and opportunities and should be treated alike, with special provision for girls' training where the need arises, just as special provision is made for boys in particular areas. It is difficult to make specific recommendations because practically all areas of the world of work provide employment opportunities for women. Thus it follows that, with few exceptions, all courses in the high school should be available to both sexes.

Finally, the committee is cognizant of the inadequacies of this report in respect to refinement. However, it is pleased to present to the superintendent this document which represents months of effort on the part of many people in an attempt to bring the whole "world of work" program into focus in the Detroit Public Schools. In a sense, this is a preliminary report or first edition because it is too big a job to cover with any degree of finality at this time.

If the committee has provided background information on which improvements may be based, it will have served its purpose. The need for improvement is urgent.

CARL L. BYERLY

Chairman

June 1961

Examination of the Problem

INTRODUCTION

Acceleration of change in the economy increases the stress on institutions preparing young people for productive roles in the social order and makes necessary a careful re-examination of the total program of the public schools in preparing young people to enter the world of work.

The Detroit public schools have responsibility for the education of all youth who are educable. They recognize that the amount and quality of what pupils learn will vary according to the capacity and the motivation of the individual learner. They accept as one of the obligations of the schools encouragement and development of latent talents and motivation of all pupils to the highest possible standard of achievement.

Practically all school instruction has a bearing on the employability as well as the productivity of the individual. This is true whether the individual aspires to a profession, to a semi-skilled or an unskilled occupation. It is true for girls as well as for boys, since practically all occupations are open to girls and a large majority of women are members of the employed working force at some time in their lives. Ability to communicate through reading and writing, habits of dependability, specific knowledge of the city and nation in which we live and of the rights and obligations of citizens—these are essential to success of every individual in the world of work. Many instructors frequently overlook or do not recognize this aspect of employability. They ignore the practical applications and implications of academic subjects—the arts, the sciences, and the humanities. They overlook or fail to realize that their instruction is, or should provide, an important part of the preparation of pupils for any and all occupations.

THE COMMITTEE

The Detroit Schools Committee on Preparing Pupils for the World of Work was appointed originally by the Superintendent of Schools in the fall of 1958 to investigate and make recommendations concerning the future of Cass Technical High School. It became increasingly apparent to the administration, when the committee reported its recommendations in the spring of 1959, that the future of Cass Technical High School was part and parcel of a much larger complex which needed to be taken into consideration. The original committee was chaired by Earl L. Bedell, Divisional Director of Vocational Education. Upon

his retirement, the chairmanship was assumed by Andrew D. Althouse, Director of Industrial Education; and the committee was given its present title. Further exploration and study were made during the second semester of the school year 1959-60, but no summary statement was prepared before the retirement of Mr. Althouse in August 1960. Dr. Carl Byerly was then asked to serve as the committee chairman. Consequently, this statement represents the findings of a committee which has been in existence for approximately three years under two names and three different chairmen. Its most intensive work, however, has been carried out during the current year, for some conclusions are needed as guides in the development of new senior and junior high school buildings now being planned.

THE ASSIGNMENT

The purpose of the final committee, as stated by the Superintendent of Schools, was *to explore the present and probable future demands for employable skills on the part of young people about to enter the labor market; and to make recommendations concerning (1) the training which should be a part of the public school program in proper, convenient localities, and (2) appropriate relationships among the components of the total educational program.*

The descriptive title "world of work" is used as an all-inclusive term including but transcending areas of the curriculum usually designated as vocational education, industrial education, business education, and so forth. The term intends to recognize that skills, appreciations, knowledges, and attitudes developed in many courses and activities influence vocational success and need to be so recognized. Thus, in its essence, the committee was concerned with the whole program of the public schools as it attempts to prepare young people to make successful transitions from the dependency of youth to full-fledged responsibility as citizens in a productive and dynamic society.

The committee endorses a statement in the 1960 Annual Report of the Carnegie Corporation of New York, entitled *From High School to Job*, in which John W. Gardner describes "A New Task for the School" in these terms:

What will the system look like: For one thing, it will be a system in which such a young person's transition from the formal educational system to the outside world is not an unceremonious rejection, but a carefully planned transfer to a new setting for personal growth. Instead of feeling that he has been rudely dropped on the scrap heap, the youngster should feel that he is being assisted into new and significant experiences. More importantly, it will be a system that begins to prepare for that transition long before it occurs and watches over it long after it takes place.

THE ACADEMIC CLIMATE IN THE UNITED STATES AT THE BEGINNING OF THE SIXTIES

The high school was established to broaden the educational opportunities for youth in the United States. The programs which have been developed to provide these broadened opportunities have varied greatly over the years to accommodate growing numbers who needed education beyond the eighth grade. At

the same time, entrance requirements have been raised by some colleges. Also at the same time, there have been dramatic changes in the economy which have made radical changes in employment opportunities for youth and adults. Now, more than ever in the past, education is related to the economic well-being of the individual and thus to the well-being of society of which he is a part.

The decade of the 1950s may be noteworthy for its progress in promoting scholastic effort and achievement, in expanding the offerings in science and mathematics, and in improving instruction in foreign languages. There is a tendency on the part of some to look upon these developments, along with special attention to gifted students, as being pure gain. Some of these same persons tend to ignore improvements which had been made in educational practice during the last twenty years. For two decades steady progress had been made in developing practices which fostered education of *all* youth in keeping with their abilities and interests. Many practices were being eliminated which had made education selective and which squeezed out those who did not fit what the school offered. The school program was expanded to provide for many who needed other kinds of educational opportunities than had been traditionally offered.

Among the practices which were being carefully examined, frequently altered, and sometimes eliminated from our American secondary schools, were: (1) restrictive academic standards which all must meet or be eliminated from school concern; (2) marking systems which had been developed for reporting academic work of a selected group of pupils, mostly college bound; (3) failure used as a method of discouraging and eliminating from schools those whose ability and/or motivation did not meet the performance level of the academic school program; (4) disciplinary action for those who did not fit the expected pattern of achievement or behavior; and (5) neglect of those who were ungifted or not interested in the school program.

Today there are some who advocate return to a restricted secondary school with emphasis on fixed standards required of all. They advocate "failure" of more pupils, as a method of "raising standards." They seem to disregard what has been learned by careful study about the ineffectiveness of "failure" as a general stimulus to greater learning for most pupils, and what are often highly undesirable personal and social consequences of "failure" in the lives of boys and girls. They seem to overlook the fact that the pupils they would "fail" at the same time are expected to retain a high esteem for their teachers, for the educational system, and for the society which has eliminated them from the schools and the opportunities that might be open to them for more or a different kind of education.

These well-meaning critics have seemingly not recognized that by definition half of all the children are below average in ability on any scale of measurement. The school program and its instruction must be geared to meet the needs of its clientele—which, in America, is *all* children and youth. Each pupil, whether above, at, or below average in competence or potential, is entitled to equal consideration.¹ School offerings need to recognize this situation. No

¹ Formerly, if he did not fit the school pattern he could, with more profit to himself and to society, enter the world of work. Today this is not so.

longer is it possible for a pupil who does not fit the traditional school pattern to drop from school and, with greater profit to himself and society, enter the world of work.

The trend in some school systems toward more required subjects, particularly in science, mathematics, and languages, if accompanied by a disparaging attitude toward other subjects, works distinctly to the disadvantage of the student less gifted in these advanced academic fields and also to the disadvantage of the genuinely talented student who is not inclined to devote his energies to these particular fields. Status and recognition are critical values in the lives of adolescents, and in many schools the "college prep" or academic courses carry the highest prestige. Desirable as it is to encourage those who have the ability to develop fully their talents, to achieve in the fields of science, mathematics, and the languages, it is equally important to encourage those with other abilities to their fullest development.

We are faced with the fact that a large proportion of those who enter high school do not finish, and that approximately three-fourths of the young people today who enter high school do not take work beyond high school. Thus a school program restricted to the academically talented and ambitious pupils is not enough for the needs of today's youth.

This is the scholastic milieu which confronts the comprehensive high school in many communities. It is a reflection of a society which expects its youth to achieve the ambitions of their parents, whether these ambitions fit the abilities of the pupil or not.

While Detroit has not subscribed to a restricted secondary education program, there are those in the community who sometimes advance this point of view.

The purposes and goals of American secondary education have been well stated by the Educational Policies Commission and other agencies. The implementation of these aims has met with rough sledding, partly because of a tendency to hold fast to a philosophy that is not geared to the needs of the times.

According to Robert J. Havighurst,² there are three principal functions of the secondary school in present-day society, dominated by metropolitan and industrial culture, which should determine its program and its philosophy:

1. The school should provide a pathway of growth to adulthood for all kinds of youth. In effect, it says to every boy and girl: "If you will do your best, we have a program for you which will help you grow up to be a competent worker, citizen, and parent. Everyone can succeed if he tries to do so."
2. The school should provide opportunity for economically underprivileged boys and girls to improve their status in life by preparing for a job which pays well and by learning the middle-class skills and attitudes.

² In an address at the Annual Convention of the Michigan Association of Secondary School Principals, Grand Rapids, Michigan, November 30, 1960.

3. The school should promote social cohesion by bringing all kinds of youth into a satisfying and co-operative common life in which people of different backgrounds and expectations in life learn to understand and appreciate one another.

It should be pointed out that the foregoing statement of functions does not eliminate standards. It simply recognizes the changes that have occurred in American society which should be acknowledged in the program of the schools and, in effect, it asserts that uniform standards, based on academic excellence, for all pupils in our high schools today are neither realistic nor desirable.

THE SOCIO-ECONOMIC CLIMATE

In pursuing its charge "to explore the present and probable future demands for employable skills on the part of (Detroit) young people about to enter the labor market," the committee has made every effort to be objective, to observe trends supported by reliable data, and to avoid generalizations based on the current bleak employment picture.

The research findings of the Detroit Commission on Children and Youth have served as basic data for the committee. Other sources have been the Michigan Employment Security Commission, the United States Department of Labor, the Vocational and Industrial Division of the Michigan Department of Public Instruction, and special consultants from labor, from employers and employers associations, and from the apprentice training program in Canada.

Without elaboration, these are our findings in the area of socio-economic climate:³

Nationwide Population and Employment Trends and Implications

1. By 1975 the population of U. S. may rise to 225 million people. To provide for this additional 50 million, and to continue our living standards as they have improved in the past, we should aim at producing 70 per cent more in goods and services than we do today. However, our labor force will have increased only about 28 per cent, assuming there will be as many people wanting to work in proportion to the population as we have now. (3) (5)
2. For demographic reasons the labor force will grow at a faster rate than population in the next ten years. Young workers under 25 and workers 45 and over will account for almost 90 per cent of the total increase in the number of workers. Young workers under 25 will make up almost half of the growth in the labor force in the decade ahead. (2)

³ Sources of these data are indicated in Appendix I. Numbers in parentheses refer to the first five titles in the appendix.

3. During the 1960s two out of five workers will be 45 years of age or older. (5)
4. During the next decade the number of women workers will increase at nearly twice the rate for men. By 1970 almost 50 per cent of all women aged 35 to 64 will be in the labor force. The largest increase will be in the 45-54 age group. (2) (5) (This is part of a long term trend indicating an increasing participation of women in the world of work).
5. During the next decade more people will choose to work part time—an increase of 30 per cent is projected. (5)
6. The biggest increases in employment will occur in occupations requiring the most education and training. (1) (2) (5)
7. We may expect to see a great increase in the demand for service-type jobs and in the number of people engaged in the service industries. (2) (3) (4)
8. Professional and technical occupations are expected to grow most rapidly in the future, followed by clerical and sales occupations. The proportion of blue-collar workers will not change much; the proportion of craftsmen will increase considerably, and there will be a decline in the proportion of laborers. (2) (4)
9. Clerical and sales work will continue to provide the major employment opportunities for women. (2)
10. As women grow older, more and more of them enter semi-skilled positions. Yet few of them receive any training in school to prepare them for these occupations. (1) (5)
11. In the foreseeable future there will be continuous and increasing demand for skilled tradesmen, viz., auto mechanics, industrial machinery repairmen, electricians, instrument repairmen, business machine repairmen, carpenters and bricklayers, etc. Favorable employment opportunities will be available for dry cleaners, beauticians, barbers, and other service workers, particularly in the hotel, motel, and restaurant industries. (2)
12. The air transportation industry will continue to attract many young people. High turnover rates of jobs such as stewardesses, clerks, and traffic agents create new opportunities for employment, and there will be a continuing demand for workers to service the planes. (2)

Nationwide Needs and Trends in Youth Training

13. For the nation as a whole, 30 per cent of all young workers entering the labor force during the 1960s will lack a high school education.

The comparable figure for Detroit will be about 40 per cent unless there is a drastic change. (1) (5)

14. Employment opportunities for youth who have not completed high school are scarce and becoming more scarce. Current trends nationally indicate that of the 26 million young people who will enter the labor force during the 1960s, 7½ million will not have completed high school and 2½ million will not have completed the eighth grade. (2)
15. Research studies on drop-outs (U. S. Department of Labor, 1960) reveal the following data:
 - a. Sixty-three per cent of the drop-outs had I.Q.s in the normal range (85-109) and 6 per cent were above normal (110 and higher);
 - b. Thirty-five per cent left school because of adverse school experience;
 - c. Twenty-seven per cent of the girls quit school to get married;
 - d. Over eighty per cent of those who quit were grade-retarded by at least one year;
 - e. Fifty per cent of those who dropped out were retarded at least two years. (2)
16. Although parents continue to have the greatest influence on occupational choice, youth themselves indicate a desire to have more occupational guidance and counseling in the schools. (1)
17. The Co-operative Education Program (Distributive Education, Retailing, and Trade and Industry) will continue to expand at the high-school level for four reasons: (a) increased enrollments, (b) rising educational level of sales and sales-supporting employees, (c) rapid growth in job opportunities in these areas, and (d) the availability of part-time employment. The program should be made available to adults. (2)
18. With ability and proper training, girls are able to obtain technical positions. (1) (5)
19. There is a tremendous need, and a growing one, for some type of work experience program to bridge the gap between school and full entry into the world of work. It is needed to provide an educational program utilizing the world of work as a laboratory for exploration of opportunities, skills, and attitudes, and for development of job competencies. It is needed particularly for youth who have dropped out of school and for those who cannot find employment upon graduation from high school. (2)

Detroit Population and Employment Trends

20. Within the next ten years in Metropolitan Detroit the number of young people, 18 through 21 years of age, will almost double. These are children now living. On the average, 10,000 youth in this age bracket will come on the job market each year in Detroit. In the years

1966-68 the number of these youth will increase to at least 20,000 per year. (1)

21. Negro youth find it particularly difficult to get employment, have fewer opportunities for upward mobility, and are making comparatively slow gains in the area of skilled and technical positions. (1) (2) (5)
22. The job market in Michigan is shifting rapidly, with sharp changes in the kinds of jobs that are available without adequate research to keep counselors and teachers abreast of the shifts. (1) (4)
23. The traditional unskilled and semi-skilled entry positions for youth in industry are rapidly disappearing, due to automation, industry shifts, and the competition of unskilled and semi-skilled adults. The loss has been at the rate of about 2,000 jobs per year in the city of Detroit alone during the past ten years. (1)
24. The young people who have been particularly hard hit are: (a) minority youth, (b) early school leavers, and (c) youth who are high-school graduates but have no particular skill or academic ability to offer prospective employers. Boys are especially affected. (1)
25. Employment personnel are steadily increasing their demand for more skills and more subject matter preparation. (1) (4)
26. Employers are demanding more and more post-high-school training, particularly for those youth who hope to advance or up-grade themselves. (1) (5)
27. The mobility of the labor force will continue; local training supplies a national labor market. (2) (3) (5)

Detroit Training Programs

28. Although there is a present scarcity of, and a growing demand for, skilled technicians (probably 100,000 in the Detroit metropolitan area in the next ten years), facilities to train these technicians are inadequate and, where private vocational schools are used, extremely expensive. (1)
29. Apprentice training has been *decreasing* in Michigan, although the projected need for skilled workers remains high. Entrance requirements become increasingly more stringent, and the average age for entry is continually going up. (1)
30. Small companies, in particular, are indicating a greater reluctance to hire or train youth. (1)

From an exploratory document of the U. S. Department of Health, Education and Welfare, *Vocational Education in the Next Decade*, (January 1961) we quote

several significant paragraphs which are peculiarly relevant to the Detroit situation.

Providing adequate vocational education for the work force of the Nation is a complex and difficult problem and requires essential staff and desirable facilities. Vocational education, therefore, is currently available to only a portion of those who are in need of such education. The increasing demands for trained manpower, economic and social developments, changes in the various occupational fields, advancements in science and technology, and other developments make it necessary to extend vocational education programs and modify the present programs so they will more adequately serve the Nation. One of the most promising new ways of providing education is through area vocational programs.

In addition to those currently being enrolled there are many groups that can be served effectively only by vocational programs designed to meet their peculiar needs. The handicapped, the aging, the migrants from rural areas to cities, migrant farm workers, displaced and unemployed workers and the young people who drop out of school are all in need of special types of vocational training. These groups should have the opportunity to receive the vocational training that they so urgently need.

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Programs must remain flexible so that they may be made available for youth and adults, and for the less able as well as the more able persons. Also they should be flexible enough to be adapted and adjusted to the needs of young and older workers and to the needs of persons who need training and retraining for new occupational responsibilities. Close working relationships are to be maintained at all times with personnel in vocational guidance and in placement. The programs are designed to prepare each person so he will utilize his own abilities to the greatest extent possible. It will be necessary for vocational educators to know the student, his interests, desires, aptitudes, limitations, and opportunities for employment.

The demand for workers in occupational fields varies greatly with respect to numbers, skills, and abilities needed. Some jobs require only a simple skill, others require complex abilities. Workers are able to find and hold a job and advance faster and further in the occupation of their choice if the training is based on occupational needs. When the training is broad and the individual develops "know why" as well as "know how" he is able to move from one job to another with little difficulty. Vocational educators emphasize the development of understanding as well as the acquisition of skills.

Careful studies must continue to be made of the changes in occupations and to determine the demand for trained manpower . . . Also, there must continue to be studies to determine the job requirements in occupational fields.

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Preparatory programs must continue to be operated to provide training for youth who will enter the labor force. There must be emphasis on extension courses also for persons already in the labor force. Many vocational education programs should be offered beyond the usual twelve grades in the

secondary schools. Therefore, programs at the post-high school levels, particularly in the 13th and 14th years will be expanded. Many persons who need vocational education in order to obtain employment are unable to enroll for such training because it is not available in the community where they live. Frequently, such persons do not have adequate finances to pay for this education which may be available in schools in other communities.

THE PRESENT DETROIT PROGRAM IN PREPARING PUPILS FOR EMPLOYMENT

The committee is fully cognizant of the long and illustrious period of leadership which has been rendered by the Detroit schools in areas of vocational, industrial, and business education. It is our assignment, however, to probe for weaknesses and to ascertain those areas where the program needs to be expanded, bolstered, curtailed, or simply altered to meet the demands of a changing economy.

On the whole, somewhere in the system, we can find programs offering training in occupational skills in most of the employment fields. Some of these are sporadic and the outgrowth of a teacher's or a principal's enthusiasm. Possibly they remain because they exist, rather than because the need for them still exists. Some of these programs serve a real need but suffer from malnutrition because they "don't fit" into conventional, traditional departments, and therefore do not have the same attention as programs which "do fit" in the regular departments. (Examples are horticulture in the biology department at Mumford, commercial foods and cosmetology at Chadsey, or tailoring at Northeastern). Some programs at a few schools only may need expansion. Auto mechanics is taught at only three comprehensive local high schools (Western, Southeastern, and Pershing), electricity or electronics are offered at only three comprehensive local high schools (Mackenzie, Cody, and Pershing).

Some buildings have facilities and elaborate equipment for industrial education in areas where there is very little student interest or demand for such subjects (Mumford). Other high schools apparently should have expanded facilities of this kind to meet community and student needs (Cooley, Eastern, Northern, Central, and others).

Only a few neighborhood high schools have at all comprehensive offerings to prepare young persons for entry into employment (Cody, Chadsey, Pershing); and, in each case, there is considerable need for expansion of facilities and offerings.

The committee recognizes that most of the secondary-school buildings are at least twenty-five years old and that communities change. It also recognizes that the program of a school should be adapted continuously to the changing needs of its student body and of society.

To put it very bluntly, the present course offerings are less than adequate to prepare youth for employment in today's labor market. Supervised work experience is available to only a fraction of Detroit's high school youth.

Co-operative classes in Distributive, Office, and Trade and Industrial areas need to be greatly expanded. The increasing technical skill levels expected of office personnel call for an expansion of offerings far beyond the basic clerical and stenographic training which is standard in comprehensive high schools. Equipment needs to be updated and increased.

Considering the magnitude of the problem, only a token effort is presently being made to assist boys and girls in the special-education program to be employable. Many of these slow learners are otherwise quite normal and are able to master simple skills and develop personal habits and attitudes which would make them employable, especially in the less-demanding service occupations. But they need help to achieve this end.

The committee feels that one of the most critical needs is to improve the adequacy of counseling and guidance available to students. As long as counselors' responsibilities include program making, monitoring study halls, checking attendance, and handling discipline problems, there can be little improvement in the guidance function, regardless of the pupil-teacher ratio. Where there is general orientation of teachers and counselors that "college prep" and academic programs are more respectable than other offerings, the school environment can only breed dissatisfaction and difficulty, especially for those students who need personal and social counseling and help in seeing what is best for them among all program opportunities. Never has it been more important for counselors to be alert to stresses and pressures now bearing on youth, individually and collectively, and to keep abreast of changes in the employment market, as well as familiar with college-entrance requirements. Any realistic development designed to improve the preparation of pupils for the world of work must deal with this problem.

Another related problem is the attitudinal climate in some high schools. There seems to be a tendency in a few schools to encourage students to drop out of school as soon as they can legally do so if they are not academically inclined. This is especially true if the student is troublesome. No matter how crowded the school may be, such an attitude on the part of counselors, teachers, or the local school administrative staff cannot be justified either for the pupil or for society. Diversified offerings should be made available in order to salvage such students. It would be futile to expect 100 per cent success in salvaging potential drop-outs; but a more sympathetic and helpful attitude on the part of teachers and counselors, and the development of alternative programs of a diversified nature, will undoubtedly result in a better performance by some pupils and better service by the schools.

CHAPTER II

Guidelines for Improvement

School curriculum with an emphasis on occupational information and training should eventuate in a saleable skill for each pupil no matter how low the level of skill involved.¹

As the present program of the Detroit Public Schools is examined in the light of the evolving economy, it becomes increasingly evident that certain changes in emphasis are imperative if the schools are to continue to operate effectively in their role of preparing young people to enter adult life as responsible and productive citizens.

Two factors, over which the schools have no control, cast an ominous shadow over policymaking in the determination of school programs to prepare youth for the world of work. The first is the increasing flux and variety in the character of employment itself. The second is the contradictory nature of the time element which determines when a youth may legally leave school but gives no assurance as to when industry will accept him into full-time employment. The law may be specific, on the one hand; but the present organization of industry practically writes off the possibility of full-time employment for youth with the minimum legal exposure to education.

The committee calls attention to the following characteristics as descriptive of youth employment opportunities now and in the foreseeable future:

1. Technological changes tend to reduce the number of unskilled jobs and to increase the need for knowledge and more advanced skills for entrance to employment.
2. Changes in work requirements demand flexibility and adaptability of basic skills along with a knowledge of materials and an understanding of processes.
3. Acceptability for employment increasingly requires mastery of knowledge and skills usually associated with general or basic education; performance ability in a specific skill area is no longer sufficient qualification for employment except in the most menial and unpromising job situations.

¹ Conference on Unemployed, Out-of-School Youth in Urban Areas. Washington, D. C. 1961.

4. Full-time placement for youth under eighteen years of age without high school diplomas has markedly decreased.
5. Employers are reluctant to hire youth who are subject to call for military service.
6. Safety restrictions applicable to youth in industry under the age of eighteen are a deterrent to full-time employment for youth under that age and a handicap in setting up work-experience programs which require the co-operation of industry and the schools.
7. There is evidence of an increased acceptance of responsibility on the part of employers and organized labor to work with the schools in establishing supervised work experience programs.

Now, more than ever before, the schools have an obligation to provide a program and a climate which will be conducive to retention of all youth through high school or, otherwise, in school-supervised work experience until age eighteen.

IMPROVEMENT OF THE CURRICULUM IN GENERAL

Without excluding or minimizing the goals of cultural enrichment or preparation for family life and political citizenship, all curricula should recognize and identify those elements which have a significant bearing on employability and effective performance in a job situation. The practice of classifying courses as "college preparatory" has tended to conceal or obscure the very practical nature of communication, mathematics, and other traditional academic skills. This problem has so many facets that it deserves separate treatment and more extended study.

Within the program of the secondary schools there have developed a number of curriculum rigidities and spheres of influence which are inimical to the flexibility demanded in a modern educational program. In academic areas these rigidities are supported by tradition and, to a certain extent, by accrediting agencies and college-entrance requirements. In other curricular areas, particularly those where emphasis is placed on preparation of youth for employment, the rigidity is fostered and protected by special federal and state financial reimbursement. In the development of complete training programs for the world of work, it must be noted that there are continuities between science and the industrial arts including vocational education courses, and between the language arts and business education, as well as a commonality of purpose in virtually all other major aspects of the school program. This situation creates a special challenge, to those responsible for the improvement of instruction, for creative co-operation in the development of courses and programs which bridge these vestigial barriers.

The "catch-all" or omnibus nature of the "general curriculum" as presently used in the Detroit secondary schools has been the subject of much deserved criticism, but few constructive suggestions have been made for improvement. It has been an administrative convenience to contain students who have no

clearly defined educational or vocational goals for themselves. All too frequently these are the students who stand in the greatest need for guidance and counseling. The Committee endorses Dr. James B. Conant's "Recommendation #2: *Individualized Programs*. It should be the policy of the school that every student has an individualized program; there would be no classification of students according to clearly defined and labeled programs or tracks such as 'college preparatory,' 'vocational,' 'commercial.'"²

Since one of the emerging characteristics of employment is the increase of jobs requiring knowledges which cut across the offerings in the traditional curricula, the schools have a continuing responsibility to keep their counseling and their offerings current and up to date. It may be desirable and advantageous to provide a variety of suggested program sequences based on eventual job requirements with the specific understanding that (1) each student's course of study is tailor-made, and (2) all sequences should prepare the able student for college admission if later plans develop in this direction.

ABILITY GROUPING

It is clearly understood that a certain amount of ability grouping by subjects is necessary in order to challenge the talented and to meet the needs of the slow learner. This type of organization of instruction is endorsed by Conant³ and other authorities as the only defensible one if the school is to meet the needs of a widely heterogeneous population. This procedure will require a high calibre of counseling based on adequate records and data. It will mean that a majority of the course offerings in each of the comprehensive high schools will be provided at several levels of expected competence or ability ranging from high, to average and to low, with a great concentration in the "average" group.

GUIDANCE AND COUNSELING

After evaluation of the programs in more than one hundred comprehensive high schools in twenty-two states, it cannot be an accident that the Number One Recommendation of Dr. James B. Conant concerns standards for "The Counseling System."⁴ More recently, on the same subject but specifically in reference to secondary schools in large cities, he told the Conference on Unemployed, Out-of-School Youth in Urban Areas: "This expansion of the school's function will cost money and will mean additional staff—at least a doubling of the guidance staff in most of the large cities; but the expense is necessary, for vocational and educational guidance must be a continuing process to help assure a smooth transition from school to the world of work."

² Conant, James B. *The American High School Today*, p. 46. New York: McGraw-Hill, 1959.

³ *Ibid.*, p. 49.

⁴ *Ibid.*, p. 44.

Guidance for the world of work must be comprehensive and the counselor must recognize his responsibility for developmental needs as transcending his responsibility for needs arising from crisis situations. He must aim at intellectual development and vocational preparation for the student; the emphasis may vary from student to student but neither can be excluded in favor of the other.

An effective guidance program must have continuity, as well as co-ordination with instruction and with the activities of the school. Guidance is a necessary feature of *the elementary school* where habits and attitudes are most malleable and where the collection of essential records and data must begin. It is at this level that intensive case work offers the greatest promise in the alleviation of emotional and psychological problems. Here, as well as at the junior and senior high levels, increased attention must be given to counseling and to marshaling and co-ordinating the child and family service agencies in dealing with the problems of youth. Here the potential drop-out can be identified and work begun to provide a program designed to meet his needs.

In the junior high school, the student's regular program should involve many exploratory experiences related to the world of work. His knowledge of industrial, vocational, and technical work opportunities should expand; and he should be encouraged in developing a realistic assessment of his own abilities, his limitations, and his aspirations for the future. The guidance service at this and succeeding levels should be based on the counselor's knowledge of the individual: his standardized-test records throughout his school career, health, social development, and personal attributes including leadership qualities, character, study habits, and persistency. This information should be put into objective form and be passed on to the receiving school, where it becomes the working data for the high school counselor in helping the student realize his readiness to profit most from the varied offerings available to him.⁵

It is of utmost importance that students, teachers, counselors, and parents understand the work and the common aims of each other. It is of equal importance for teachers and counselors, and of almost equal importance for parents, that they know the various kinds of school programs available and the purposes served by each program.

Once a student has made a choice of a course of study, it must not be assumed that he cannot or should not change. It may well turn out that the student would be better served by another program in his school or in some other school altogether. The vacillation of adolescence is a fact of life which must be lived-with and understood, regardless of the exploratory courses and the information on world-of-work opportunities provided in his regular school program.

Measurement is one of the essential means through which the effectiveness of our educative processes is assured. Individual analysis is the appraisal

⁵ The present Forms 36, 936, 998-A, 1036, and experimental 450 carry some of these data from grades K-9 to the high school. A more comprehensive and cumulative set of records is offered in the new Form 80 Series, now experimental in several elementary, junior high, and senior high schools.—Ed.

of the individual, with emphasis on the collection of data that accentuate the uniqueness of the individual. If we are to accept the premise that individuals have different patterns of skills and abilities, then different test batteries, and in some instances different norms for a single test battery, should be used for different departments within the school, assuming that different ranges of ability are used or called for.

Each student needs to be counseled regularly, and periodic check-ups should be made to insure that his plans and his developmental characteristics are oriented to each step up the educational ladder.

In the junior high school, as a part of the regular program, a course must be provided for the study and exploration of occupational fields. A person's general education as well as his economic education is incomplete without knowledge about the existence of the 25,000 occupations in the United States. Concurrent with the study of occupational fields, students should be guided into self-evaluation and self-understanding which will lead ultimately to a well-grounded occupational choice.

It is recognized that there is a dearth of instructional material for courses of this kind, and that such materials as exist must be revised and updated continuously. For this reason the committee recommends the following objectives and criteria for such a course to be offered at the eighth- or ninth-grade level:

1. To guide students in learning what skills are most basic to success in the various occupational fields
2. To offer knowledge about the range of opportunities in the various occupational fields
3. To provide information concerning admission and preparation requirements
4. To assist each student in evaluating the relationship between (a) his own abilities, interests, and skills, and (b) the job situations and training requirements in given occupational fields
5. To inform and counsel with parents regarding world-of-work courses in the light of their child's abilities, aptitudes, and interests

At the senior-high level, it is especially important that counselors have the latest and most complete information about (1) occupations in which there is greatest demand, (2) opportunity for advancement, (3) employment security, (4) shortage of available workers, and (5) shortage of competent workers. For each of the specialty areas where training is provided in his school, the counselor needs to be informed about (1) job opportunities, (2) range of jobs available, (3) related occupations, (4) occupational hazards, and (5) opportunities for training beyond high school. The counselor must also know where training programs not offered by his own school are available, and he must be willing to make arrangements for a student in his charge to obtain such training if the need becomes apparent.

The counseling and guidance function is incomplete and inadequate without the capstone of an effective *placement service* which maintains close ties with business, industry, labor, and the official employment agencies of the city, state, and federal governments. As rapidly as possible the schools should develop a close relationship with the Michigan Employment Security Commission in all its branches in Detroit to the degree that we are using this agency as the official agency for the schools. The placement offices should maintain an active follow-up service on the post-high-school careers of youth from the time they leave school until they are twenty-one years of age. The follow-up data should provide a constant feedback to keep school courses and programs in tune with the demands of the economy so far as developmental skills are concerned.⁶

WORLD-OF-WORK TRAINING FOR THE MENTALLY RETARDED⁷

The provision of suitable programs and services for mentally retarded pupils constitutes one of the most significant problems for special education and for the school system as a whole. Most of these boys and girls terminate their formal schooling from a special class or school. Approximately one-half of these students drop out of school at about their sixteenth birthday, and 85 per cent are out of school by the time they reach the age of seventeen.

A comprehensive plan for this group of boys and girls should provide guidance services, visiting teacher and psychiatric consultant service, occupational training, and job placement and follow-up service. Because many of them exhibit nonconforming behavior, school and community agencies should provide a carefully correlated program of rehabilitation to assist these pupils in their post-school community adjustment.

Because these pupils have been in segregated situations (rooms, departments, or separate buildings), it is important to bring them back into contact in a building with normal youth for their terminal months or years in some vocational skill program. This can best be accomplished in one high school in each district where specialized training can be provided and where guidance, counseling, and placement services are available. It is not expected that these boys and girls will complete high school, but it is hoped that they can be provided with simple employable skills and assisted to make satisfactory adjustments to the labor market at their level of employability.

⁶ A more complete statement on guidance and counseling is included as Appendix X.

⁷ A more complete analysis of special-education problems is included in this report as Appendix II. Also, specific recommendations are included in Chapter III of this report.

CHAPTER III

Recommendations of the Committee¹

(The specific recommendations of this chapter were considered individually by the Detroit Board of Education. The action taken in each case by the Board of Education is indicated in italics after each item in Section A and immediately under the heading for Sections B, C, D, E, and F.)

A. GENERAL RECOMMENDATIONS WITH SYSTEM-WIDE APPLICATION

1. *Manipulative Skills.*—All courses should utilize experimentation with and manipulation of materials wherever these are relevant to the learning process. Basic to understanding of materials is the scientific process by which we have arrived at our present knowledge—e.g., observation, measurement, shaping, application of heat and cold. Whether students are of high, average, or below-average ability, and whether they have their experiences with materials and processes in places called laboratories, shops, or studios, the experience of handling materials is an essential part of their learning. It is an accepted practice that the manipulative experience with materials and processes enriches the understanding of college-bound students in science. Therefore, there should be no question that manipulative procedures can stimulate the curiosity and enrich the experience of other students now enrolled in non-laboratory science courses who are expected to learn only out of textbooks. The committee notes that the number of pupil stations for teaching manipulative skills in a comprehensive high school has increased significantly in recent years. It believes that with the increase in the facilities there should be a correlative principle that all students should devote at least one-fourth of their time to development of manipulative skills. (*Approved*)

2. *Status of Courses and Programs.*—The behavior of the administration and the staff of each school should demonstrate the belief that all programs and courses are of equal status and respectability. (*Approved*)

3. *Open-end Programs.*—Every school program (except those designed for the mentally retarded) should provide opportunity for an education sufficient to justify a high-school diploma at its completion. Some offerings will anticipate leaving school before graduation but every program should permit and encourage re-entry for eventual graduation. (*Approved*)

¹ Additional recommendations in a different category appear in Chapter IV.

4. *Advisory Committees.*—For each world-of-work skill program which is inaugurated in the system, there should be an Advisory Committee established. It should be made up of representatives of labor, management, and business, who are actively engaged in the occupations they represent, along with educators. All recommendations of such Advisory Committees affecting curriculum should be channeled through the Curriculum Council. (*Approved with the understanding that the committees to be appointed will be ad hoc advisory committees*)

5. *Work Experience.*—School-supervised work experience and/or co-operative programs should be expanded as an integral part of preparing pupils for transition to full-time employment. Special effort should be made to provide school-supervised work experience for boys and girls in their terminal courses in Special Education. (*Approved*)

6. *Placement Service.*—Placement specialists (who may be school employees or agents of the M.E.S.C.) should be assigned to each of the nine districts to assist high-school graduates, youth planning to drop out of school or those who have dropped out, and students seeking part-time employment to find suitable jobs. These specialists will work in close co-operation with the co-ordinators and counselors in the school and the branch offices of the Michigan Employment Security Commission. (*Approved*)

7. *Testing Specialists.*—Aptitude-testing specialists should be available on call in each administrative district. (*Approved*)

8. *Supplementary Transcripts.*—Each youth on leaving school should be issued a detailed achievement record to help the potential employer evaluate the youth as a prospective employee. (*Approved*)

9. *Identification of Potential Drop-outs.*—Potential drop-outs should be identified as soon as possible and given special attention. Remedial service should be available at an early elementary level and continue as long as needed. Potential drop-outs should be closely followed and channeled into appropriate programs to encourage their remaining in school. (*Approved*)

10. *Research.*—Special research studies, with continuity of program and personnel, are needed to provide information in the following areas: (a) occupational choice, (b) training methods and job performance, (c) follow-up studies of employment of graduates and drop-outs to determine adequacy of curriculum offerings, (d) the cause and effect of non-promotion at all grade levels, (e) the effect of raising the required age of school attendance, (f) etc. Such research would provide guidelines for establishing, operating and appraising existing or proposed world-of-work skill programs. (*Approved*)

11. *Co-ordinator Status.*—The co-ordinators assigned to the world-of-work program should have a realistic case load of no more than 25 students and should have special training in placement and an understanding of the needs of business and/or industry. They should have qualifications comparable with those of a counselor and those with permanent certification should have the same rank and salary as counselors. Upon appointment and pending permanent certification as a co-ordinator, one salary increment should be granted. (See

Appendix IX) (Referred to the Superintendent for further consideration in connection with the total salary program)

12. *Urban Youth Corps.*—In co-operation with the city, state, federal, and other public and private agencies, the Board of Education should seek to establish a supervised urban work education program to assist unemployed out-of-school youth in acquiring employable skills while performing useful service to the community. (Approved)

13. *Job Upgrading.*—A sufficient number of "job upgrading" centers should be provided throughout the city so that it will be available to all students who need this type of service. (Approved)

14. *Provision for Mentally Retarded.*—In at least one senior high school in each district, provision should be made to meet the special training needs of youth who have come up through the program of Special Education. The program will of necessity be exploratory to begin with, but it should provide vocational training on a salable skill along with further attention to skills of communication and use of simple mathematics. A "sheltered workshop" or on-the-job training should be attempted. (Approved)

15. *Exploratory Programs.*—World-of-work skill programs² on an exploratory and/or introductory level should be encouraged as an offering in each secondary school. Present programs should be evaluated and strengthened where needed. (Approved)

16. *Evaluation of Current Programs.*—The industrial arts, business education, distributive education, home economics, and other world-of-work programs in all secondary schools should be reviewed. These programs should be changed and strengthened if a need is proven. Programs for students with below-average ability, average ability, and above-average ability should provide all young people with the opportunity to explore a variety of world-of-work experiences. These programs should offer an opportunity to acquire manipulative skills in a laboratory situation. (Approved)

17. *Counselors and the Counseling Function.*—

a. A counselor's duties should include:

- (1) Service to both youth and their parents to ensure sound educational and occupational choices
- (2) Assistance to those who need scholarships and loans
- (3) Assistance to those interested in advanced training and apprenticeship
- (4) Assistance to teachers so that they may be more effective in the guidance program of the school system

² "World-of-work skill programs" as used here and elsewhere in this report refers to specific occupational training such as that presently provided in commercial foods, cosmetology, auto mechanics, tailoring, office machines.

b. Certain minimum counseling standards should be established:

- (1) There should be at least one counselor for every 300 pupils in both junior and senior high schools.
- (2) The counselor's work should be so organized that his special counseling competence is used to the highest degree.
- (3) Clerical services should be provided to counselors.
- (4) Private interviewing facilities should be available for the counselors.
- (5) Counseling should be available starting with elementary grades, the amount of service to be determined by the student's need.
- (6) A counselor's position should be a professional position.
- (7) In-service training programs and workshops—utilizing educators and management, union, employee, and Michigan Employment Security Commission representatives—should be established for counselors to assist them in doing a realistic job of counseling.

c. Counseling service should be provided in each high school throughout the summer. (*Approved*)

18. *The Teacher's Role in Guidance.*—

- a. Teachers should be better prepared for their important guidance responsibilities through in-service training opportunities.
- b. Teachers, both elementary and secondary, should reflect a guidance point of view, in order to help pupils make occupational choices based on reason rather than chance.
- c. School courses should be related wherever suitable to the occupational goals and future working experiences of the pupil.
(*Approved*)

19. *Economic Education.*—An essential part of preparation for the world of work is having an understanding of the inter-related nature of our economy and of conditions which are conducive to personal and national well-being. Therefore, in every student's program there should be courses which will make him knowledgeable about labor unions and their functions, industrial and corporate organization, unemployment compensation, workmen's compensation, taxes, social security (O.A.S.I.), labor legislation, antimonopoly legislation, stocks and bonds, insurance, credit, installment buying, and so forth. (*Approved*)

20. *Continuing Evaluation.*—The committee recommends the establishment of a permanent world-of-work evaluation committee, with rotating membership and including representative lay people, to meet at regular intervals to appraise the effectiveness and comprehensiveness of the world-of-work program of the Detroit Schools. This committee would function in conjunction with the

Curriculum Council. (*Referred to the Curriculum Council for study and recommendation to the Board*)

B. RECOMMENDATIONS FOR ALL COMPREHENSIVE HIGH SCHOOLS

(Approved)

The comprehensive high school is designed to provide general and specialized education for all students in its service area. It provides for the slow learner, the socially handicapped, the student with average abilities, the student with special abilities, the early job seeker, and the seeker of higher education.

A well-rounded and enriched program should be offered in all comprehensive high schools.

Each comprehensive high school should have a wide range of world-of-work programs at a variety of levels of skill or achievement.

Within the comprehensive high school, the world-of-work programs should range in level of skill from techniques of job seeking in programs such as job upgrading, through school supervised work experience and co-operative programs, to preprofessional training for those who will seek advanced technological or academic training.

Each comprehensive high school should be able to offer to all students, regardless of course of study, laboratory experience to provide familiarity with materials, tools, instruments, mechanisms and sources of power. In order to provide these basic offerings in manipulative skills, most Detroit high schools must have additional manipulative and laboratory facilities. Typing instruction should be available to all students.

All comprehensive high schools should have the following services available to students:

1. Occupational aptitude testing together with a counseling program that shares the results with students and parents
2. School-coordinated co-operative programs
3. School-supervised on-the-job work-experience programs
4. Programs of the character of job upgrading
5. Increased placement service within each school on a twelve-month basis
6. Follow-up studies of both graduates and drop-outs

C. RECOMMENDATIONS CONCERNING SPECIAL DISTRICT HIGH SCHOOLS

(The general plan is approved, with the provision that within each district the recommended services should be provided but that the location might be in one or divided between two or three high schools in the district.)

Each of the nine administrative districts should have the responsibility for determining the needs of students in its area and for developing specialized courses and programs to meet those needs.

While each comprehensive high school should offer programs to meet the needs of most of the students living within its area, some programs will not be numerically or economically justified at all high schools. Those programs which have such limited interest, or involve the use of such specialized facilities and equipment, that they cannot be offered at every high school should be offered in locations convenient for students from several schools.

A student who desires and needs greater specialization than is offered in his comprehensive high school should be encouraged to attend the area or special district high school with world-of-work-oriented specialties. The student's approved choice at the end of grade 9 should allow him continuing freedom both to explore and to change his field of interest and to find his aptitudes and levels of competence in various fields.

These special district schools would be expanded comprehensive high schools which should carry the full range of specialties, from the science and arts programs for the superior students to the simplest world-of-work trainings involved in short-term specific-skill classes.

The nature of modern industrial organization calls for basic understanding of the nature of materials and processes. Specific work skills change and will continue to change. To the extent that it is increasingly necessary to provide a solid base in knowledge and skills, rather than specific job applications, the common scientific base for a group of occupations becomes more significant; and the organization of programs to provide greater depth of scientific understanding, whether in laboratory or shop, should be the basis for specialized programs.

Within these special district high schools there should be developed, in accordance with the need, as wide a range of world-of-work programs as now exists at Chadsey, or the advanced scientific and technical specialties offered at Cass. Trade programs such as those at Washington or Trombly and co-operative programs such as those at Wright should be integrated within the framework of the special district high school.

Examples of programs which should be developed with suitable levels of laboratory and work experience for students of varying ability are:

Biology and industrial biology, including courses suitable for premedical, prenursing, cosmetology, or other personal services

Geology and earth sciences, including courses leading to work in the fields of agronomy, meteorology, horticulture, forestry, landscaping

Clothing and fabrics; food preparation, processing, and preservation

Chemistry and industrial chemistry, including drugs and the processing of nonconsumable materials

Physics and industrial physics, including electronics, automation, refrigeration, heating, and power mechanics

Business education; distributive education

Graphic arts

These special district high schools should carry an extra complement of counseling and testing personnel, co-ordinators of supervised job experience, and expanded placement services and follow-up for students and graduates to care for the special requirements of such a heterogeneous student body.

For this purpose it is recommended that initially, and subject to variations to meet the need of the district, one high school within the district should be selected to carry a wide range of specialized courses. This high school should be selected on the basis of accessibility for students within the district. The facts that a high school has already developed a wide range of special courses or may be planned to contain a variety of specialties should also be considerations in selection of a district high school for development of specialized courses.

The following high schools might well be designated for this purpose:

DISTRICT	SCHOOL
South	Murray (Wright)
East	Eastern
Southeast	Kettering-Trombly
Southwest	Chadsey
West	Cody
North	Pershing
Center	Central
Northwest	Redford
Northeast	Denby

D. RECOMMENDATIONS CONCERNING SCHOOLS TO SERVE THE CITY-WIDE AREA

(Approval is given to the principle that some programs located in one high school should serve several districts or the entire city.

Approval is NOT given to the proposals for Cass Technical High School and the High School of Commerce. Until further determination is made of the post-high-school financing plans for this region of the state, any proposals for extension of the Cass program beyond the high school are premature.

Approval is given to the continuation of the Aero-Mechanics program, with the understanding that the administration will study the alternatives suggested to see which appears to be most practical.)

Some programs developed in the special district high schools may be unique in a single district or in single high schools on the east side or west side. These district schools would then function as a city-wide facility for those programs.

The committee recommends that Cass Technical High School should continue and be developed as a city-wide technical institute in accordance with the following recommendations of the committee on the Future of Cass Technical High School:

The School as an Institution.—The Cass Technical High School building shall continue to serve the expanding needs of technical education in Detroit. With modernizations and additions, it shall be designated as the *Cass Technical Center*.

- (1) a technical high school (grades 10-12)
- (2) a technical institute (two-year post high school)
- (3) adult technical education (evening school)

Modern technical education requires special emphasis on mathematics, science, and technology; however, it is necessary to teach some manipulative or operational aspects of many technical programs through work in shops and laboratories.

Geographical Location.—The advanced planning for future development of the city, including parkways, expressways, and thoroughfares, confirms the desirability of retaining the present location as the most ideally situated in reference to present and future city-wide transportation.

The Buildings and Grounds.—The Board of Education shall proceed immediately to acquire land adjacent to and in the vicinity of the present building, in conformity with plans being made by the City Plan Commission.

This land acquisition will provide space for additional buildings as needed, for parking, for health education activities, and for driver training; the additional space would enhance the civic beauty of the area. The present buildings on the adjacent land may be used temporarily to relieve overcrowded conditions in the Cass building.

The Board should proceed immediately to modernize the present building and make such architectural and mechanical changes as may be required to operate a functional program efficiently.

The Membership and Building Capacity.—The capacity of the present building shall be established at 4,400, and a maximum registration shall be permitted for each of the main divisions which does not exceed the total building capacity.

In order to control the membership in the present building among the various divisions, each one shall be privileged to maintain a maximum registration:

(1) *Senior high school*

- (a) Grades 10-12 (no less than 75 per cent of capacity, approximately 3,300)
- (b) Evening school (adults—no quota)

(2) *Technical institute*

- (a) Grades 13-14 (no more than 25 per cent of capacity, approximately 1,100)
- (b) Evening school (adults—no quota)

As long as the Center is confined to the present building, the above quotas shall obtain. The ninth grade shall be eliminated as fast as the 6-3-3 plan is activated city-wide.

It is understood that there may be considerable interchange of pupil personnel between the Technical Institute and the Evening School.

The Curriculum Organization for the Technical High School.—The present curriculum organization in the Cass Technical High School shall be continued. Each student should follow a prescribed program of studies pointed specifically to a well-defined area in the "world of work".

The school should continue to grant a standard high-school diploma carrying the curriculum designation.

New curriculums should be organized promptly to meet the changing needs of industry and business; similarly, established programs should be evaluated frequently, and, if necessary, revised or discontinued.

Adult Education.—The Adult Evening School at Cass shall be primarily concerned with technical education. It should provide opportunity for adults:

- (1) To secure technical institute certification
- (2) To acquire new skills and knowledge for job improvement
- (3) To complete their high school education, when space is available, and
- (4) Membership numbers or size of class in specialized and technical classes should be in accord with state reimbursement requirements.

Standards for Instructors for the Center.—They should have a combination of academic and technical education and employment experience that would make them competent in related areas of business and industry.

Business and Distributive Education.—Business courses presently housed in the High School of Commerce should be included as a major division of Cass Technical Center when the present High School of Commerce building is razed. The present program and services of the High School of Commerce, as well as its relations with the business and commercial institutions of Greater Detroit, should be cherished and preserved.

When land and funds are available, a building for the exclusive use of Business and Distributive Education should be built.

Relation to Other Schools-Responsibility for Guidance.—The principals and those who perform the guidance function in all potential contributing schools shall be informed of the special offerings and entrance requirements of the Cass Technical Center. The city-wide guidance program shall be organized and co-ordinated to insure that the individual students who can profit most from the Cass programs are counseled accordingly.

Admission of students to the Cass Technical Center shall be controlled through a system of qualifying tests, interviews, and review of previous scholastic records. The final responsibility for acceptance of the student shall rest with the administration of the Cass Technical Center.

Aero-Mechanics High School.—Due to the expansion of the City Airport the present Aero-Mechanics High School Building will be condemned and razed. This is a program which serves the entire city and it is desirable for it to be continued as a specialized training program for the certification of engine and air-frame mechanics under the auspices of the Federal Aviation Agency.

There are two alternatives proposed by the committee for the continuation of the program of the Aero-Mechanics High School. The first is to acquire another, more suitable building which fronts on the airport and transfer to it bodily the present program of the Aero-Mechanics High School. The second alternative is to acquire a smaller building on the airport site to accommodate only the laboratory facilities (shops) which have a direct bearing on training the two kinds of mechanics. This shop would be attached to a nearby high school, probably Kettering or Pershing, and the boys would get their "related instruction" such as welding, machine shop, and courses in fundamentals along with required academic subjects (mathematics, science, social studies, and language arts) in the regular high school. Typically, a boy enrolled in the Aero-Mechanics program under these conditions would spend a half-day in the laboratory at the airport and the other half-day in the high school proper covering related or required subjects.

It is necessary for the laboratory or shop features of this program to be located at the airport. The committee definitely recommends that the program be continued.

E. RECOMMENDATIONS CONCERNING ADULT DAY AND EVENING PROGRAMS

(No action was taken on this section pending the attention and study it will receive in the "Community Planning for Community Schools" project now in process.)

The primary responsibility of the school system is to provide kindergarten through 12th-grade education. However, the changing character of the employment market, the need to acquire skills, the need for young people who have dropped out of school to complete their high school education, the vast expansion of leisure-time activities, and early retirement of a growing number of senior citizens make it essential that the Board of Education expand its responsibility for adult education programming in conjunction with other private and public agencies. An adequate separate budget should be set up for the maintenance and operation of a complete Adult Education program.

The Adult Program should provide a variety of opportunities:

- a. To complete high school
- b. To acquire training for job mobility
- c. To obtain post-high-school technical training
- d. To acquire knowledge and skills as part of the over-all leisure-time activity program for the citizenry
- e. For the related training of apprentices

Location and Time of Programs.—

1. *The Comprehensive High School*

Evening programs for high-school completion, leisure-time activities, and the acquisition of business and industrial skills based on the facilities of the high school and the demand for the program.

2. *The Special District High School*

An evening program.—Program for high-school completion, leisure-time activities, and the acquisition of business and industrial skills based on the facilities of the district high school and the demand for the program. Special facilities used in the high-school program should be available for an Adult Program. These special facilities should be used for post-high-school training where necessary.

3. *Cass Technical Institute*

A day and evening program.—Terminal, technical, post-high-school program. (See Section D.)

4. *The Adult Training Center*

A day and evening program.—An Adult Training Center should be established in the renamed Washington Trade School.³ This Center should be established to satisfy the need for high-school completion and for training and retraining at all levels. Special training programs of varying length and a wide variety of subject matter should be established at the request of industry, unions, trade associations, the employment service, and citizens.

The related training of the apprentices for the manufacturing industry should be part of the program.⁴

The Adult Training Center should act as a clearing house for those high-school graduates requiring additional courses to remove college-entrance deficiencies. The center should offer such courses or place the graduate in appropriate courses in the day or evening programs of the district high schools.

A central clearing system should provide accrediting service for the Adult Program of the entire school system.

5. *Administration of Adult Program in High Schools*

The administration of the Adult Program in each high school, where the enrollment warrants, should be in charge of an assistant principal who is responsible to the high school principal. It is expected that the assistant principal in charge of the evening program should be on duty from approximately 2:00 p.m. until 10:00 p.m.

6. *The Building Trades Related Training Program*⁵

A day and evening program.—The program should be housed in a single building and continued in its present form.

A continuing effort should be made to simplify the interpretation and evaluation involved in the acquisition of a high-school diploma by those registered in the adult program. This simplification should be carried out for those who obtained their previous schooling outside of the Detroit system as well as for those who attended a Detroit public high school.

The financial cost of the Adult Programs should be studied to determine if persons most in need of this kind of programming (unemployed youth, adults on

³ The elementary school should be removed and the facilities used totally for this Adult Program.

When the Chrysler Expressway is completed, the Washington Trade School will be easily accessible to all areas of the city. Almost all the area now served by the elementary school will be eliminated by the expressway.

⁴ The administration should expand its encouragement of acceptance by management and unions of the spirit as well as the letter of the Fair Employment Practices Act as it affects the Apprenticeship Program.

⁵ *Ibid.*, p. 31.

public assistance, etc.) are being handicapped because of the cost of the program.

For those classes requiring special materials and supplies, a fund should be available in each school to be locally administered to permit direct and immediate purchase of materials when needed.

F. RECOMMENDATIONS CONCERNING BUILDING FACILITIES

(Approved)

The watchword in current construction of school buildings is *flexibility*. No one can predict with assurance the type of instruction facility that will best accommodate the learning situation as far ahead as the building may be expected to be in use. Thus every effort is made to create building spaces and facilities which can be adapted easily and economically to accommodate changes in the curriculum, changes in methods, materials, or equipment used for instruction, or for changes in groupings of students.

The recommendations of the committee concern themselves with those features which may be considered relatively constant, or which will probably be needed to accompany the changes which may be anticipated. A *general recommendation* is that at least one-fourth of the floor area of a high school should be planned for manipulative skills with characteristics of adaptability and convertibility.

Adaptability.—The patterns developed by industry to meet the requirements of adaptability suggest a direction for future school construction. Among the characteristics which are desirable in manipulative skills areas are:

1. Unobstructed floor areas
2. Movable non-masonry walls
3. High ceilings
4. Overhead conduit
5. Acidproof drains
6. Floor loading capacity for heavy machinery
7. Fire safety devices to anticipate increased use of plastics
8. Over-supply of utility capacity anticipating increased use
9. Master controls for power equipment and utilities
10. Adequate loading docks and door openings

Utilities.—During construction or major alterations of buildings it is comparatively inexpensive to build-in conduits for different types of wiring and various kinds of pipe for water and gas and for drainage purposes. Any room which could be adapted to use as a shop, laboratory, studio or similar facility in the future should have utilities easily available—lighting and power, hot and cold water, drainage, fuel gas, ventilation (normal and exhaust), and compressed air. Facilities should always include provision for use of audio-visual instruction including closed-circuit television. Complete control of light should be provided.

Related Instruction.—Science and industrial science areas should be designed and located to permit co-ordination of instruction and some interchangeability of space between them. For instance, suggested groupings of world-of-work programs for the purpose of strengthening the correlative teachings in science are:

1. Occupational courses related to biology (personal services including cosmetology, nursing, pre-medical, etc.) should be adjacent to biology laboratories.
2. Occupational courses related to chemistry (drugs, industrial chemistry, agriculture, and foods) should be adjacent to chemistry laboratories.
3. Occupational courses related to physics (power mechanics—auto, aero, and marine—electricity, electronics, and some industrial trades) should be adjacent to physics laboratories.

A fourth clustering is based on linkage between business and distributive education. It points up the inter-relatedness of business courses, distributive education courses, clothing and fabrics, graphic arts, commercial art, etc. There probably are other clusters which could be identified.

CHAPTER IV

Recommended Criteria for World-of-Work Skill Subjects

(Approved)

The committee spent several lengthy sessions trying to determine what should be the nature and variety of world-of-work programs, in this case *specific occupational skill training*, to be made available under the auspices of the public schools. Among the lists studied were (1) those presently offered in the Detroit Public Schools, (2) those offered in private vocational schools in the Detroit metropolitan area, and (3) those offered in non-profit schools in the same area. The *Directory of Occupational Titles* was utilized for further refinement of categories and as a check against possible omissions.

The committee feels that its responsibility is not to recommend specific courses for all high schools or even for selected high schools. This is a decision which must be made in relation to a locality, its pupil personnel, and the indicated needs of the community served by the school. On the other hand, the committee recognizes a responsibility to provide some guidelines or criteria to aid local school personnel, or the general administration, in determining the kinds of world-of-work skill programs which can be justified in given situations.

An analysis must be made of skill subjects, training for specific occupations, to determine (1) those which should be provided in comprehensive high schools, (2) those which should be offered in regional high schools, (3) those which can be justified in single centers (serving pupils from the entire city) and (4) those which should be relegated to post-high-school institutions.

CRITERIA

I. Criteria for Inclusion in the Program of Comprehensive High Schools

1. The skills required are relatively simple.
2. Possible employment opportunities are extensive enough to justify the training program.
3. Such training is now offered in comprehensive high schools and meets a definite need.
4. There is a large demand for this training throughout the city.
5. There is a degree of skill required, but it is not highly specialized and it may be transferable.

6. Any special equipment required for this training is either available now or readily accessible.
7. The training tends to qualify individuals for "entry" occupations.

II. Criteria for Inclusion in Programs of Special District High Schools

1. Special equipment is required.
2. Enrollment justifies the demand, but not in every high school.
3. Special training is necessary and teachers are scarce.
4. Such training is necessary for entrance into employment in given field.

III. Criteria for Inclusion in a Central High School or a Single Program in any High School to Serve the City

1. Special equipment is required.
2. The number requesting the training is even smaller than that for the regional school, but still large enough and important enough to justify the program.
3. Requires special material to work on or with.
4. There is a limited but definite demand for employment sources.

IV. Criteria for Assignment of Occupational Training to Post-High-School Institutions

1. Highly specialized and highly technical training is required.
2. More experience and maturity is required.
3. Special equipment is required.
4. Limited job opportunities are available.
5. Pre-requisites relegate it to post high school.
6. There are labor union and age requirements.
7. The number of instructors available is limited.
8. There is not enough demand for placement.
9. Recognition from business and/or industry.

OCCUPATIONS

The list which follows covers the occupations on the check list used by the committee and which were considered suitable for inclusion in the public-school program on a local or regional school basis. Whether or not they should actually be included in the program of a given school should be determined to a large extent at the school level, where it is expected that the administration and staff are sensitive to local needs and the program is amenable to such demands.

Business and Distributive Occupations¹

Clerk	Checker
Stenographer	Stockhandler
Bookkeeper and record keeper	Marker
Business machines operator	Packer
Translation involving bilingual skills	Shipping room laborer
Accounting machine operator	Display helper
Computing machine operator	Tabulating machine operator
Salesman	Business machine programmer

Personal Services

Cosmetologist	Nurses aid
Cleaner, spotter, presser	Practical nurse
Valet	Receptionist
Barber	Hospital orderly
Shoe repairman	

Mechanical Services

Business and industrial machines serviceman	Motor mechanic
Home appliance serviceman	Automobile
Automatic vending machines serviceman	Truck
Autobody repairman	Diesel
Gas station attendant	Aircraft
	Marine

Building Construction and Operation

Painter and decorator	House wiring
Interior decorator	Janitor
Furniture finishing and repair	Heating installation and serviceman
Upholsterer	Air conditioning installation and serviceman
Architectural draftsman	

¹ Appendix III gives a complete list of recognized Distributive Occupations.

Manufacturing (metals, plastics, and non-consumable materials)

Welder
Machine shop helper

Engineering draftsman
Patternmaker—wood and metal

Clothing

Power sewing machine operator

Dressmaker, milliner

Graphic Arts

Photographer
Sign painter
Commercial artist
Draftsman

Printer
Pressman
Layout artist
Bookbinder

Transportation and Communication

Port and dock—materials handler

Telephone switchboard helper

Electricity and Electronics

Radio and television serviceman

Recording technician

Chemistry

Laboratory helper

Laboratory technician

Agriculture

Nurseryman helper
Gardener
Greenskeeper
Landscape helper

Park maintenance man
Forestry helper
Floriculturist
Park naturalist

Foods

Meat and food processor and packager
Baker
Chef
Dietetic aide

Waitress
Caterer
Meat cutter

Appendices

Appendix I

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Appendix II

SPECIAL EDUCATION IN THE DETROIT PUBLIC SCHOOLS
(Summary of a report to the World-of-Work Committee)PAUL H. VOELKER, *Divisional Director*

At the present time there are approximately 19,000 pupils enrolled in special-education programs in the Detroit Public Schools. This group comprises about seven per cent of the total number of boys and girls enrolled in the public schools.

Below are the approximate enrollment figures for the various groups of special-education pupils:

Mentally Retarded	6,200
Socially Maladjusted	1,100
Blind	85
Partially Seeing	325
Deaf and Hard of Hearing	360
Orthopedic and Epileptic	700
Hospitalized and Homebound	400
Health Conservation	500
Special Foreign	150
Speech Correction	9,400

In this report we will focus our attention on the older pupils who will terminate their education from special classes. Consequently, we will be particularly concerned here with the first six groups listed above. In general, the remaining groups will be enrolled in regular grade programs at the time of leaving school.

Boys and girls classified as physically handicapped (Blind, Partially Seeing, Deaf and Hard of Hearing, and Orthopedic) are, in large part, referred to various community or state agencies at the time of leaving school. These agencies assist the pupils, when indicated, in obtaining further training or education and in finding employment. As a result, the school and community program for these boys and girls is fairly well developed and organized to meet the special needs of these groups. The major gap in the school program is in the almost complete lack of direct counseling services for the pupils. Most of them leave school without the benefit of a complete guidance program specially designed to assist them in making a suitable adjustment in the community.

A problem of somewhat larger scope is that of providing suitable educational programs and services for the mentally retarded and socially maladjusted boys and girls. The enrollment figures shown above reveal that there are approximately 6,200 pupils presently enrolled in special classes for the mentally retarded and 1,100 boys in classes for the socially maladjusted. It

is estimated that there are upwards of 1,500 mentally retarded boys and girls who are waiting for placement or are unidentified. Thus, the problem is magnified beyond the scope revealed in the actual enrollment figures.

A review of the problem of the socially maladjusted should include the following considerations. (1) Most of the present enrollment is comprised of boys. (There is one class of seventeen girls; however, there are many more girls who require a special program for whom provisions are not presently available.) (2) Some of the boys are returned to regular grades; however, a large percentage terminate from the Senior Ungraded classes. (3) Community services for further training, job placement, and follow-up services are practically non-existent. (4) It is estimated that there are approximately 200 school leavers annually.

A comprehensive school plan for this group of boys and girls should provide for extensive guidance services, visiting teacher and psychiatric consultant service, trade training, and job placement and follow-up services. Because of their nonconforming behavior, school and community agencies should provide a carefully correlated program of rehabilitation to assist these pupils in their post-school community adjustment.

The provision of suitable programs and services for mentally retarded pupils constitutes one of the most significant problems for special educators. Most of these boys and girls terminate their formal schooling from a special class or school. It is estimated that up to 50 per cent quit school shortly after their sixteenth birthday. Up to 85 per cent have terminated when they are seventeen.

The curriculum provides for instruction in four areas of living with the vocational area given special emphasis during the last three years in school. Shop work, designed to provide prevocational skills, comprises approximately 40 per cent of the allotted school time in the Special B schools.

About 15 per cent of the Special B group are promoted into junior and senior high school Special Preparatory classes. Since this segment is selected for promotion on the basis of superior academic performance and social and emotional maturity, they are frequently scheduled into some of the regular grade shops and other classes. However, this class-room integration of special pupils and regular students has become increasingly more difficult to implement as standards of regular grade performance and achievement have been raised.

Few of the mentally retarded are privileged to enjoy guidance services by trained counselors. Nor are school-work programs a part of the curriculum for these youths. Although a few are eligible for vocational rehabilitation services, most of these pupils are not considered as suitable candidates. As a consequence, many of these youths enter the world of work ill-prepared to make adequate community adjustments in early post-school life. A review of the work records of these boys and girls reveals that few have full-time employment and that many are idle for long periods of time.

To assure earlier and more adequate community adjustment, counseling service should be provided from age fourteen, and provision should be made for an effective educational program for these pupils beyond the age of sixteen, a privilege and opportunity provided for all other youths. This program would include school-work experiences, the learning of selected job skills in special training centers, and job placement and follow-up services.

Appendix III

DISTRIBUTIVE OCCUPATIONS

(Courtesy of Western Michigan University)

1. Managers and operators of all kinds of stores, shops, and other businesses:
 - a. Retail stores of every kind: grocery, meat, furniture, apparel, hardware, drug, dry goods, general merchandise, etc.
 - b. Wholesale stores
 - c. Jobbing and commission houses
 - d. Co-operative organizations: retail, wholesale, and agricultural.
 - e. Commercial service businesses
 - f. Personal service businesses: laundries, dry cleaners, garages, beauty parlors, etc.
 - g. Independent artisan shops: repair, handicraft, printing, milliners, jewelers, etc.
 - h. Contractors dealing with consumers: electrical, plumbing, building, etc.
 - i. Small factories selling direct to consumers
 - j. Hotel, restaurant, recreation, and amusement businesses
2. Managing agents: branch managers and other local representatives of all kinds
3. Apprentices and learners in training for managerial positions in stores
4. Department heads, supervisors, and foremen in stores:
 - a. Commodity departments: buyers for dresses, men's suits, meat, cigars, etc.
 - b. Service departments: delivery, restaurant, etc.
5. Purchasing agents and general buyers of all kinds for:
 - a. Retail and wholesale stores
 - b. Co-operative organizations
 - c. Industrial, commercial, and personal service organizations of all kinds
 - d. Agricultural products
6. Salesmanagers in all kinds of business
7. Salespersons: sales agents, canvassers, solicitors, demonstrators in:
 - a. Retail stores of all kinds
 - b. Wholesale, commission, jobbing organizations
 - c. Industrial organizations: industrial salesmen, specialty salesmen, etc.
 - d. Commercial services: canvassers, solicitors, realtors, life underwriters, etc.
 - e. Transportation, communication, and other public service organizations
 - f. Personal service businesses: laundries, cleaners, garages, etc.
 - g. Hotel, restaurant, amusement, and recreation businesses
 - h. Farmers' markets

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8. Store service workers in contact with customers: cashiers, adjusters, collectors, etc.
9. Delivery men of all kinds
 - a. Delivery salesmen: milk, ice, laundry, etc.
 - b. Retail and wholesale delivery men
10. Miscellaneous: auctioneers, newspaper vendors, waiters, stewards, and organization housekeepers

Appendix IV

ENROLLMENTS BY SUBJECT AREAS IN DETROIT SCHOOLS
Per 100 Students in the Total Enrollment

SCHOOL	Art	Business Education	English and Library	Family Living	Foreign Language	Health	Home Economics	Industrial Education	Math- ematics	Music	Retailing	Science **	Social Studies
Central	12.0	63.9	104.7	2.6	35.0	60.7	15.0	21.7	57.0	18.6	2.4	65.8	66.8
Chadsey***	9.4	50.3	96.3	2.0	10.2	57.7	14.0	46.6	54.2	19.2	-	40.6	76.3
Cody	10.3	79.3	98.6	4.6	23.8	60.6	17.1	43.1	46.0	15.6	5.5	53.5	70.8
Cooley	11.5	72.0	106.1	5.8	33.0	47.0	8.1	19.1	54.3	32.4	5.1	60.1	75.1
Denby	14.1	62.1	102.2	5.1	23.1	51.8	12.1	31.7	41.4	15.3	4.7	61.3	63.5
Eastern	12.5	69.5	101.7	4.8	13.5	54.3	25.1	10.6	32.7	26.7	5.6	52.1	63.4
Ford	8.5	67.5	106.4	7.6	28.7	43.4	7.0	17.8	44.9	18.7	9.9	59.9	68.2
Mackenzie	9.6	59.7	99.9	2.3	29.0	56.0	7.2	29.8	58.0	19.1	3.5	60.5	73.7
Mumford	10.6	31.4	104.0	3.9	53.9	46.6	9.7	15.6	63.8	9.3	4.9	65.7	76.1
Northeastern	10.9	70.8	96.3	10.3	9.5	49.5	15.1	31.8	33.2	20.1	3.9	56.3	64.2
Northern	9.0	60.6	94.5	6.9	14.1	57.3	19.1	26.3	47.5	24.0	*	59.0	66.2
Northwestern	5.1	54.8	98.4	3.7	16.8	63.5	15.9	17.9	54.0	12.9	*	59.7	59.9
Osborn	13.3	84.9	105.3	6.5	14.3	65.7	23.5	26.0	28.7	19.8	5.9	48.0	74.4
Pershing	10.2	88.1	98.5	1.9	15.9	49.1	11.2	40.5	27.8	13.0	5.7	54.4	75.1
Redford	10.4	66.1	102.9	5.1	31.4	73.8	12.6	26.9	49.1	22.6	4.1	60.8	68.0
Southeastern	7.8	93.6	99.1	4.6	19.6	55.2	16.1	28.7	33.7	19.7	5.2	51.4	57.3
Southwestern*	8.2	63.5	105.6	2.4	10.9	78.2	19.8	33.2	55.9	12.4	-	41.6	86.8
Western	9.5	91.6	104.5	3.7	14.9	54.4	18.7	43.2	43.4	15.8	2.1	49.9	72.1

* Newly established programs.

** Science enrollments as per cent of total enrollment in grades 10-12 only except Chadsey and Southwestern which include junior high science.

*** These figures include 8th grade enrollments.

PREPARING PUPILS FOR THE WORLD OF WORK

Appendix V

EXISTING SCIENCE FACILITIES
IN DETROIT COMPREHENSIVE HIGH SCHOOLS

SCHOOL	Biology	Conservatory	Chemistry	Physics	General	Lecture
Central (1176)	2		1	1		3
Chadsey (1112)	1		1	1		3
Cody (1507)	2	1	1	1	1	2
Cooley (1338)	2	1	2	1		3
Denby (1595)	2	1	2	1		3
Eastern (1185)	3		2			1
Ford (914)	2	2	2			2
Mackenzie (1324)	3	1	2	2		3
Mumford (1838)	2	1	2	2	1	4
Northeastern (848)	2	1	1	1		1
Northern (857)	2	1	1	1		2
Northwestern (1119)	3	1	1	1		1
Osborn (816)	2	1	2			2
Pershing (1534)	3	1	2	1		3
Redford (1874)	2	1	2	1		4
Southeastern (1065)	2	1	2	1		3
Southwestern (584)	1	1	1	1	1	
Western (681)	2	1	1	1		3

Total enrollments as indicated in non-promotion report, June 1960, are in ().

Appendix VI

TYPES AND DISTRIBUTION OF WORK LABORATORIES IN THE DETROIT PUBLIC SCHOOLS

Herewith is presented a list of schools with types of work laboratories which are located in each. The list is divided into special education, elementary, junior high, senior high, trade, and technical.

Special Education

SCHOOL	Wood and Metal	Wood Work	Metal Work	Drafting	Graphic Arts	General Industrial Arts	Arts and Crafts
Birdhurst						1	
Bennett						1	
Coolidge		1					
Doty						1	
Ellis		1	1				
Fitzgerald		1	1				
Garfield		1	1				
George		1					
Greenfield Park						1	
Harding						1	
Higginbotham							1
Jacoby	1						
Keating		1					
Lyster	1						1
Marxhausen	1						1
Monteith						1	
Moore		1	1		1		1
Oakman		1					
Sampson						1	
School for Deaf					1	1	
White						1	
Youth Home School						1	

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Elementary

SCHOOL	General Industrial Arts	SCHOOL	General Industrial Arts
Barstow*	1	Hunter	1
Bishop*	1	Ives	1
Burgess	1	Keating	1
Burns	1	MacDowell*	1
Carleton	1	Marquette	1
Carver	1	McFarlane	1
Clippert	1	Monnier	1
Coolidge	1	Morley	1
Crary	1	Newton	1
Custer	1	Nichols	1
Duffield	1	Parker	1
Dwyer	1	Parkman	1
Edison	1	Pasteur	1
Everett	1	Priest	1
Ford	1	Pulaski	1
Franklin	1	Robinson	1
Greenfield Park	1	Russell	1
Guest	1	Sampson	1
Hally	1	Schulze	1
Hampton*	1	Sherrill	1
Hanneman	1	Trix	1
Higginbotham	1	Van Zile	1
Holcomb	1	Vernor	1
Holmes, O. W.	1	Vetal	1
Houghten, T.	1	Wilkins	1
Houghton, D.	1		

* To Junior High School, September 1961.

Junior High Schools

SCHOOL	Drafting	Household Mechanics	Wood Work	Metal	Graphic
Ann Arbor Trail		1			
Barbour	1	1	1	1	1
Burroughs	2	1	1	1	1
Burbank		1			
Burt		1			
Cadillac	1	1			
Cervený		1			
Cleveland	2	1	1	1	1
Coffey		1			
Columbus	1	1			
Condon			1	1	1
Cooke		1			
Dixon		1			
Dow	1	1			
Durfee	2	1	1	1	1
Emerson		1			
Finney	1	1			
Foch	2	1	1	1	1
Garfield	1	1			
Goodale		1			
Grant		1			
Greusel	1	1		1	1
Harding		1	1	1	1
Hubert		1			
Hutchins	1	2	1	1	1
Jackson	1	1	1	1	1
Jefferson	1	1	1	1	1
McMichael		1	1	1	1
Mettetal		1			
Miller	1	1	1	1	1
Neinas	1	1		1	
Nolan	1	1	1	1	1
Post	1	1	1	1	1
Richard		1			
Ruddiman	1	1		1	
Sherrard	1	1		1	
Tappan	2	1	1	1	1
Von Steuben		1			
Wayne		1			
Winship		1			
Wilson		1	1	1	1

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Industrial Education Facilities

COMPREHENSIVE HIGH SCHOOLS	Auto Mechanics	Drafting-Mach. Arch.	Electrical	Industrial Mechanics	Machine Shop	Metal Fitting	Welding	Woodworking	Industrial Arts	Tailoring
Central		1		1						
Chadsey		4	1		3	1	1	3		1
Cody		3	1		1	1	1	1		
Cooley		2	1	1						
Denby		2		1	1	1				
Eastern		1			1					
Ford		1								
Mackenzie		2	1	1	1	1				
Mumford		2	1		1	1		1		
Northeastern		2			1	1	1		1	2
Northern		1		1	1	1				
Northwestern		1			1	1			1	
Osborn		2							1	
Pershing	1	2	1		1	1				
Redford		2			1	1		1		
Southeastern	1	1			1					
Southwestern		1			1	1		1		
Western	1	1			1	1		1		

TRADE AND TECHNICAL SCHOOLS	Auto Mechanics	Drafting-Mach. Arch.	Electrical	Industrial Mechanics	Machine Shop	Metal Fitting	Welding	Woodworking	Pre-Trade	Aero Frame	Aero Power Plant	Commercial Foods	Sign Painting	Tailoring	Printing	Refrigeration	Building Construction	Material Processes	Automation	Hydraulics	Clothing and Textile	Hospital Service
Aero		1			1	1	1			1	1											
Cass	3	9	7		2	1	1			1					4	2	2	1	1	1		
Trombly		1			1		1	1	1									1		1		
Washington	2	1			1	1	1		1									1				
Wright	3	3	2		3		1					2							1		1	1

Existing Industrial Arts Facilities in Detroit Comprehensive High Schools

SCHOOL	Drafting-Mach. Arch.	Auto Mechanics	Electrical	Industrial Mechanics	Machine Shop	Metal Bench	Welding	Woodworking	Industrial Arts- General
Central (375)	X			X					
Chadsey (1230)*	X		X		X	X	X	X	
Cody (1553)	X		X		X	X	X		X
Cooley (587)	X		X	X					
Denby (914)	X			X	X	X			X
Eastern (272)	X				X				
Ford (281)	X								
Mackenzie (785)	X		X		X	X		X	
Mumford (550)	X		X		X	X		X	
Northeastern (575)	X				X	X	X		X
Northern (499)	X			X	X	X			
Northwestern (404)	X				X	X			
Osborn (404)	X								
Pershing (1198)	X	X	X		X	X			
Redford (814)	X				X	X		X	
Southeastern (517)	X	X			X				
Southwestern (504)	X							X	
Western (821)	X	X			X			X	

Total enrollments as indicated in non-promotion report, June 1960, are in ().

* Chadsey also has sign painting and model woodworking shops as well as commercial foods and commercial clothing facilities in its trade program.

Existing Homemaking Facilities in Detroit Schools

ELEMENTARY SCHOOLS

SCHOOL	Clothing-Centered	Food-Centered	All-Purpose
Burgess			1
Burns			1
Carleton			1
Carver			1
Holmes, O. W. (M.T.W.)			1
Clippert			1
Coolidge			1
Crary			1
Custer	1	1	
Duffield			1
Dwyer			1
Edison			1
Everett			1
Ford			1
Franklin	1	1	
Greenfield Park			1
Guest			1
Hally			1
Hanneman (M. & T.)			1
Nichols (W.Th.F.)			1
Higginbotham			1
Holcomb			1
Houghten, T.			1
Houghton, D.			1
Hunter	1	1	
Ives			1
Keating	1	1	
Marquette			1
McFarlane			1
Monnier			1
Morley			1
Newton			1
Parker			1

Existing Homemaking Facilities in Detroit Schools (continued)

Elementary Schools (continued)

SCHOOL	Clothing-Centered	Food-Centered	All-Pur
Parkman			1
Pasteur			1
Priest			1
Pulaski			1
Robinson			1
Russell			1
Sampson			1
Schulze			1
Sherrill			1
Trix			1
Van Zile			1
Vernor			1
Vetal			1
Wilkins			1

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Existing Homemaking Facilities in Detroit Schools (continued)

JUNIOR HIGH SCHOOLS

SCHOOL	Clothing-Centered	Food-Centered	All-Purpose	Home Living
Ann Arbor Trail			1	
Barbour	2	2		1
Barstow			1	
Burbank			1	
Bishop			1	
Burroughs	1	1		
Burt			1	
Cadillac	1		1	
Cerveney			1	
Cleveland	1	1	1	
Coffey			1	
Columbus			1	
Condon	1		1	
Cooke			1	
Dixon			1	
Dow	1		1	
Durfee	2	2		
Emerson			1	
Finney			1	
Foch	2	2		1
Garfield			1	
Goodale			1	
Grant			1	
Greusel	1	1		
Hampton			1	
Harding			1	
Hubert			1	
Hutchins	2	2		1
Jackson	2	2		1
Jefferson	2	2		1
McMichael	2	1	1	
McMillan			1	
Mettetal			1	

Existing Homemaking Facilities in Detroit Schools (continued)

Junior High Schools (continued)

SCHOOL	Clothing-Centered	Food-Centered	All-Purpose	Home Living
Miller	1	1	1	
Neinas	1	1		
Nolan	2	2		
Post	1	2		1
Richard	1	1		
Ruddiman	1		1	
Sherrard	1	1		
Tappan	2	2		1
Von Steuben			1	
Wayne			1	
Wilson	1	1		
Winship			1	

Existing Homemaking Facilities in Detroit Schools (continued)

COMPREHENSIVE SENIOR HIGH SCHOOLS

SCHOOL	Clothing	Foods	Multi-Purpose	Home Living
Cass	3	3	2*	0
Central	1	1	0	1
Chadsey**	1	1	0	1
Cody	2	1	0	1
Cooley	1	1	0	1
Denby	1	1	1	1
Eastern	1	1	0	0
Ford	1	1	0	1
Mackenzie	1	1	0	1
Mumford	1	1	0	1
Northeastern	1	1	0	1
Northern	2	2	0	1
Northwestern	2	1	0	1
Osborn	1	1	0	1
Pershing	1	1	1	1
Redford	1	1	0	1
Southeastern	1	1	0	0
Southwestern	1	1	0	1
Western	1	1	0	1

* Cass—Improvised labs
 1 home furnishing
 1 home nursing and first aid

** Chadsey (Additional Facilities)
 2 cosmetology

Appendix VII

PER CENT OF STUDENTS AT EACH GRADE LEVEL ENROLLED
IN SCIENCE COURSES, LABORATORY OR NON-LABORATORY

Comparative Data for Seven High Schools

COURSE	Mumford	Redford	Denby	Southeastern	Northwestern	Northeastern	Southwestern*
<i>10th Grade Biology</i>							
Laboratory	88.1	61.3	65.0	44.0	20.4	20.7	10.6
Non-Laboratory	19.2	40.0	25.0	43.0	72.9	78.3	53.8
<i>11th Grade Chemistry</i>							
Laboratory	62.2	50.2	58.6	26.0	24.4	15.5	21.8
Non-Laboratory	0	17.8	16.0	13.0	3.9	35.2	0
<i>12th Grade Physics</i>							
Laboratory	25.6	29.9	17.5	17.7	16.0	10.8	9.6
Total Classes	65	61	59	37	38	30	19

* School has 8th grade.

Appendix VIII

GLOSSARY OF TERMS

- Apprentice* — a young person who, with his parent or guardian, has entered into an agreement with an employer under which the employer is to provide an opportunity for the apprentice to learn a skilled trade or occupation. (Written agreements are specified under Federal apprenticeship standards.)
- Automation* — (1) the technique of making a process or system automatic; (2) automatically controlled operation of an apparatus, process, or system, especially by electronic devices.
- Business education* — (1) that area of education which develops skills, attitudes, and understandings essential for the successful direction of business relationships; (2) an area of study dealing with the principles and practices of teaching business subjects.
- Co-operative program* — a program that provides for alternation of study in school with a job in industry or business, the two experiences being so planned and supervised co-operatively by the school and the employer that each contributes definitely to the student's development in his chosen occupation; work periods and school attendance may be on alternate halfdays, days, weeks, or other periods of time.
- Co-ordinator* — a person employed in connection with vocational courses to adjust the work of the school to the needs of business and industry; may also supervise the part-time work experiences of co-operative pupils.
- Counseling* — (1) individualized and personalized assistance in which school and community resources are marshaled by a counselor to help the student achieve the optimum adjustments of which he is capable; (2) individualized assistance (a) through personal interviews in which the student is aided in the making of his own decisions and choices, such as the vocation he will follow, etc.
- Distributive education* — a branch of education concerned with preparing persons to enter the field of selling and merchandising goods and services and with increasing the efficiency of those already so occupied.
- Educable* — capable of learning to a degree that exceeds mere repetition.
- Guidance* — a process of dynamic interpersonal relationship designed to influence the attitudes and subsequent behavior of a person; a form of systematic assistance (aside from regular instruction) to help them to assess their abilities and liabilities and to use that information effectively in daily living.
- Home economics* — a discipline that draws from the biological, physical, and social sciences and the humanities the content needed to help people solve problems of food, clothing, shelter, and relationships, and that deals with the development of understandings, skills, and attitudes essential to the improvement of the ways of living of individuals, families, and community groups.

- Industrial arts education* — a phase of the educational program concerned with orienting individuals through study and experience to the technical-industrial side of society for the purpose of enabling them to deal more intelligently with consumers' goods, to be more efficient producers, to use leisure time more effectively and enjoyably, to have a greater appreciation of material culture, and to act more intelligently in regard to matters of health and safety, especially as affected by industry.
- Industrial education* — a generic term used to designate various types of education of an industrial nature, vocational industrial education, industrial arts, technical education, and apprenticeship training in both public and private schools.
- Job upgrading* — is a voluntary program placing special emphasis on counseling, guidance and on gaining employment, finding a job, and keeping it. It is designed for school drop-outs.
- Manipulative skill* — proficiency in handling or operating one's own physical structure and/or handling or operating inanimate objects.
- Retailing education* — a term often used synonymously with distributive education but properly carrying the narrower interpretation of training for work in places of business where commodities are sold directly to the customer.
- Retraining program* — a program of courses that provides instruction serving to prepare persons for entrance into a new occupation or to instruct workers in new, different skills demanded by technological changes in their trades.
- Secondary education* — a period of education planned especially for young people of ages approximately 12 to 17, in which the emphasis tends to shift from mastery of basic tools of learning, expression, and understanding to the use and extension of tools in exploring areas of thought and living, and in exploring and acquiring information, concepts, intellectual skills, attitudes, social, physical, and intellectual ideals, and habits, understandings, appreciations; often differentiated in varying degrees according to the needs and interests of the pupils; may be either terminal or preparatory.
- Semi-skilled trade* — an industrial occupation requiring skill in a limited range of activities.
- Special education* — the education of pupils (for example, the deaf, the blind and partially seeing, the mentally subnormal, the gifted*) who deviate so far physically, mentally, emotionally, or socially from the relatively homogeneous groups of so-called "normal" pupils that the standard curriculum is not suitable for their educational needs; involves the modification of the standard curriculum in content, methods of instruction, and expected rate of progress to provide optimum educational opportunity for such pupils; carried on in special classes, in special curricula, or in special schools.
- Technical education* — a type of education that emphasizes the learning of a technique or technical procedures and skills and aims at preparing technicians, usually above the high school level but not leading to a degree.

* In Detroit, the gifted are not presently a responsibility of the Department of Special Education.

Terminal education — (1) programs of higher education that are completed in less than 4 years and do not lead to degrees; (2) the completion of formal full-time education.

Trade education — a phase of vocational education, suitable to the needs of prospective and actual workers in the fields of manufacturing, industry, and trades.

Vocational education — a program of education organized to prepare the learner for entrance into a particular chosen vocation or to upgrade employed workers; includes such divisions as trade and industrial education, technical education, agricultural education, distributive education, and home economics.

Appendix IX

CO-ORDINATORS FOR REIMBURSABLE CO-OPERATIVE PROGRAMS
(A Statement Developed by a Special Committee of Co-ordinators
and included without editing as information supplementing this report)

Cooperative occupational training is growing in the Detroit Public Schools, but it is becoming increasingly difficult to get personnel who are willing to qualify for the special vocational certificate. In order to improve the status of coordinators, the following changes in classification are recommended:

1. When a teacher is selected to serve as a coordinator (qualifying for a special certificate for one year), it is recommended that an increase be given of one salary step.
2. If the required courses are taken for certification, a provisional certificate is granted for a five-year period. At the end of the five-year period the coordinator should be qualified for a permanent certificate providing a masters degree has been earned and the twelve hours of credit required for vocational certification has been completed.
3. At this time the coordinator will have served the Detroit Public Schools for six years and should also be able to qualify for the counseling examination. It is recommended that coordinators who have qualified for counseling and who have completed the course for the permanent vocational certificate for coordination be given the status of counselor and the title of coordinator-counselor.

Since teachers assigned to teach related subjects (Trade and Industrial, Office and Retailing) also have to meet the standards for vocational certification, it is recommended that they be given one additional salary increment.

In the following pages the certification requirements are outlined and the work of the coordinator is described.

Certification of Coordinators and Related Subjects Teachers:

Special certificates valid for 1 year are granted to qualified related subjects' teachers upon the request of the Superintendent of the employing school.

This certificate is renewable for 3-year periods for teachers devoting less than 12 hours per week to the teaching of approved related subjects, or for regularly certificated teachers who devote not more than one-half of the school day to teaching reimbursable related subjects classes.

Special certificates valid for 1 year are issued to otherwise qualified co-ordinators who have less than 12 semester hours of credit in their respective fields of specialization, or less than 1 year of teaching experience.

Secondary Provisional certificates valid for 5 years, are granted to coordinators and related subject teachers who meet the minimum qualifications as stated above and who have 12 semester hours of credit in their field of specialization or have completed 1 year of teaching acceptable to the State Board.

This certificate is renewable for persons who have completed an additional 12 semester hours of credit applying on requirements for a permanent certificate but who do not have the necessary 3 years of vocational education teaching experience required for a permanent certificate.

Persons not qualifying for either a renewal of the secondary provisional certificate or for a permanent certificate are eligible only for a special 1-year certificate.

Secondary Permanent certificates are issued at the termination of the 5-year period in which the secondary provisional certificate is valid. The following requirements must have been completed:*

1. Three years or more of teaching and coordinating in an approved cooperative training program in the occupational areas specified in the candidate's certificate.
2. Ten semester hours beyond the bachelor's degree in such subjects as are mutually agreed upon by the candidate and the teacher education institution.
3. At least 12 semester hours of credit in vocational education courses which are applicable to his field of specialization and are acceptable to the State Board. Any such courses taken during the period in which the secondary provisional certificate is valid, will be accepted toward the 10 semester hours indicated under (2) above.

Significant provisions in the new certification plan follow:

1. Employing school official of candidates who are *graduates of a Michigan institution* will apply for certification of their candidate through a teacher education institution of candidate's choice from those designated by the State Board of Control for Vocational Education to prepare vocational business education and trade and industrial education teachers.

* Guide to Reimbursed Vocational Education Programs, 1958, Department of Public Instruction, Division of Vocational Education, pp. 35-36.

(Previously all candidates submitted their applications to the Division of Vocational Education, Department of Public Instruction.)

2. Undergraduates of designated institutions who complete teacher education programs entitling them to certification in both vocational business education or trade and industrial programs and in the general education field, may be issued a dual certificate upon graduation, providing they are recommended by the institution.
3. Vocational special certificates for day program teachers will be recommended by designated institutions only when (1) candidates who meet the minimum qualifications of the Michigan State Plan for Vocational Education are not entitled to be recommended for vocational secondary provisional certificate under the institution's policies and standards; (2) or holders of vocational secondary permanent certificate.
4. Applications for certification of vocational teachers of related subjects and teachers who are graduates of institutions in other states, will be submitted by candidate's employing school official to the Division of Vocational Education.

Qualifications

Related Subject Teacher

One year of practical work experience acceptable to State Board in the occupational field in which teaching will be done for persons holding a college degree.

Two years of practical work experience in trade and industrial occupations for teachers of trade and industrial subjects who have 2 years of post-high school technical training.

Four years of practical work experience acceptable to State Board in the occupational field in which teaching will be done for persons having only a high school diploma or its equivalent.

Teachers of homemaking, business education, industrial arts, or other appropriate subjects may be approved by the State Board to teach subjects related to their major fields.

Coordinator

1. Bachelor's degree
2. A minimum of 3 years of practical work experience, of which must be in the occupational field in which teaching and coordination will be done.

Those possessing a degree in a specific occupational training field (distributive, office, or trade and industrial) are required to have a minimum of 2 years of practical work experience, one of which must be in the occupational field in which teaching and coordination will be done.

The following recommendations are those of a special committee of coordinators. They are included as supplementary information only. CLB.

1. We recommend a *change of status from teacher-coordinator to counselor-coordinator* for individuals meeting permanent state vocational certification requirements and currently employed as coordinators of reimbursable cooperative programs in secondary, technical, and trade schools.
2. We further recommend that teacher-coordinators, holding a special or provisional vocational certificate, and currently teaching any reimbursable occupational education course shall be granted a salary differential equal to one annual increment in addition to the regular teacher's salary.
3. We further recommend that related subjects (Trade and Industrial, Office and Retailing) teachers on reimbursable program be given an additional \$100 per annum in keeping with the salary of special education teachers and others who are required to meet course, work experience, and other qualifications for state vocational certification. This change in status is to become effective immediately upon qualifying as a teacher of related subjects classes in connection with reimbursable programs.
4. The coordinators must qualify for vocational certification. Vocational certification for qualified candidates for the teaching of classes and the coordinating programs is recommended by the Division of Vocational Education of the State Department of Public Instruction by a designated official of a Michigan Teacher Education Institute. Issuance of the vocational certificates, however, is made by the State Board of Education, the same Board of Education that issues all certificates for regular teaching programs.

Job Analysis

A successful coordinator must be a:

1. *Counselor*--one who can assist students in determining their occupational interests and aptitudes and aids them in the choice of an occupational objective.
2. *Salesman*--one who can present the program in an effective way to retailing, office, and industrial employers.

3. *Job Analyst*--one who can assist employers in making a job operations breakdown, in determining the necessary related subjects to be studied in school, in preparing written job training programs, and in maintaining necessary progress records for each student.
4. *Diplomat*--one who can gain the cooperation of the entire school faculty in the referral of students and in assistance with related instruction.
5. *Teacher*--one who can measure up to the many and varied instructional needs of trainees.
6. *Organizer*--one who is resourceful in locating and adapting individual instructional materials for each student.
7. The coordinator is actually working in the area of Public Relations. However, with such responsibilities, the coordinators do not get reimbursed for any other expenses except mileage. Attendance at city-wide, state, and national meetings connected with the cooperative program is expected. The meetings include regular coordinators' meetings, regular meetings of sponsored clubs. Expenses are also incurred with the planning and attending of initiation, employers' dinner.
8. For the following reasons, a coordinator's program often requires working before and after the close of a regular teacher's program:
 - a. Contacting current and prospective employers
 - b. Speaking at community meetings and business club meetings
 - c. Attending conferences for the purpose of promoting cooperative education

Appendix X

GUIDANCE FOR THE WORLD OF WORK

DR. RICHARD H. DRESHER

Assistant Director of Guidance and Counseling

If our goal of education in a democracy is to assist every individual to fulfill his own potentialities and live a meaningful and satisfying life in the context of those potentialities, then guidance services must be improved and expanded, and a more comprehensive guidance program for the world of work must be developed.

We must have effective guidance services with respect to industrial, vocational, and technical training in the feeder schools from which students enter this field of education. The process of assisting students to make choices should be based on the counselor's knowledge of the individual: his school career, health, social development, personal problems, leadership qualities, character, study habits, and persistency. This information should be put into an objective form and passed on to the receiving school to help in determining the individual's readiness to profit from industrial, vocational, or technical training.

The school counselor must be more responsible for developmental needs of children and youth than for crisis needs in the community if we are to furnish good guidance service. The counselor must aim at intellectual development of and vocational preparation for the student, with the emphasis varying from student to student, but not one to the exclusion of the others.

The influence of the culture and the home, the picture of the individual's varied behavior over his school-life period are all important in guiding youth and must be taken into consideration in every educational step the student takes.

Guidance services, to be effective, must deal with all pupils and should serve all adjustment areas, whether they be health, social, educational, or vocational. All staff members must participate in the program—not merely the specialists. It is of utmost importance that students, teachers, counselors, and parents associated with all types and levels of schools and curricula know the work and common aims of each other. Teachers, counselors, and parents need to know the various kinds of school programs and their purposes.

The guidance services will fall under the following areas:

Individual Analysis

Individual analysis is the appraisal of the individual with emphasis on the collection of data that accentuate the uniqueness of the individual.

It involves collecting, organizing, and interpreting such information as may be appropriate to the early identification and understanding of the student's ability, aptitudes, interests, and other personal assets and liabilities related to educational and career planning and progress.

If we are to accept the premise that individuals do have different patterns of skills, aptitudes and abilities, then different test batteries—and, in some instances, different norms for the same test battery—should be used for different departments within the school, assuming that different patterns of abilities are needed. Measurement then becomes one of the basic instruments through which the continuance and effectiveness of our vocational educative processes are assured.

Counseling

Counseling is the very heart of the guidance program. The school has the responsibility of providing a program whereby each student and parent may confer with a counselor periodically concerning the student's problems, his goals, and together appraise the student's development. The counselor is an integrating force in the life of each student—helping him to appraise his current status; causing him to be conscious of the best opportunities available to him, and to see relationships which might not have occurred to him if he had not had this mature, intelligent counseling assistance.

The primary responsibility of the counselor is to aid the student to understand himself and to help him develop his fullest potential through use of the many and varied techniques of counseling. The counselor provides individual counseling:

1. To help the student and his parents develop a better understanding of the student's educational and occupational strengths and weaknesses.
2. To help the student and his parents evaluate his abilities, aptitudes, and skills, and relate them to his educational and career opportunities and requirements.
3. To help the student, with the assistance of his parents, develop appropriate educational plans in the secondary, trade or technical school, and the choice of an institution of higher learning.
4. To stimulate desires in the student to utilize his abilities in attaining appropriate educational and career goals.
5. To provide for the student such assistance as may be needed for the development of his aptitudes, and the full utilization of his abilities and skills.

This should lead to self-evaluation and self-understanding, leading ultimately to a well-grounded vocational choice coupled with an appropriate study program for acquiring specific occupational skills.

The counselor should assist each student in evaluating his potential for the vocational area:

1. To learn what skills are most basic to success in the vocation.
2. To learn the range of opportunities in the vocation.
3. To develop an understanding of the student's vocational potential.

The counselor should assist each student in making wise vocational choices:

1. By providing the student with knowledge of the admission requirements.
2. By assisting each student in understanding the relationship between (a) his abilities, interests, skills, and (b) job and training requirements of vocational areas.
3. By informing parents regarding the vocational courses and their child's abilities, aptitudes, and interests.

Once a student has made a choice of curriculum, vocational or otherwise, it cannot be assumed that he cannot or should not change. It may be that the student would be better served by another program in the school or by some other school altogether. In order that such changes be effectuated, it is necessary that the counselor and vocational and other school personnel be well acquainted with the work of each other and co-operate for the welfare of all students.

Each student should be counseled regularly, and periodic check-ups should be made about his plans and characteristics, to the end that he will be well oriented to each new educational step in his instruction program.

Information Service

We must make available to the student and parents such information as may be essential for them to understand the various educational and career opportunities and requirements related to the choice of educational program and/or career.

We must provide the opportunity for the student to study and explore occupational fields in the community as well as the nation at large. Everyone should learn about the existence of nearly 25,000 occupations in the United States.

In order to do good vocational counseling we must:

1. Know the classification and description of the world of work.
2. Know the occupational variations as a result of socio-economic changes.
3. Know the training and work placement facilities.

4. Know how to collect, evaluate, abstract, and file, occupational information materials as well as how to use this information.
5. Know the occupations in which there is the greatest demand, opportunities for advancement, employment security, shortage of available workers, and shortage of competent workers.
6. Have information as to what jobs will be available to the drop-out and to the students upon graduation.
7. Provide each student with occupational information about vocational areas in which training is provided. Students should learn about:
 - a. Nature of work
 - b. Method of entering
 - c. Job opportunities
 - d. Related occupations
 - e. Range of jobs
 - f. Entry opportunities
 - g. Occupational hazards
 - h. Opportunities of training beyond high school
8. Provide each student with information regarding job requirements of the vocational area in which training is offered. Students should learn:
 - a. What skills are demanded
 - b. What knowledge is demanded
 - c. What aptitudes are desirable
 - d. What physical demands are required
 - e. What special tools or equipment are needed

Follow-up and Research

We must collect and analyze such information as may be needed (1) to evaluate the guidance and counseling program, and (2) to provide such guidance information as may be available and needed to evaluate the school's program in terms of educational needs of the students and of business and industry.

We must provide to teachers and administrators such information about individual students or groups of students as may be necessary to enable them to plan or revise curriculum and instructional programs appropriate to the educational needs of the students and to the manpower needs of the community, state, and nation.

We must provide area, regional, state-wide, and national data on employment, business, agricultural and industrial trends, post-high-school educational facilities and enrollments, facilities, and costs.

We need to collect, record, and interpret data about the student from the time he enters the kindergarten through the elementary grades and thereafter, until he completes high school, junior college, college, to his first job and until we lose track of him in the working world.

We must follow-up students to collect information in terms of an individual's strengths and limitations, personality patterns, health and physical conditions, educational and work history, and home and community background.

We must develop a follow-up form and devise a system to maintain these forms. The information we need to collect includes, as a partial list:

1. Scholastic aptitude
2. Reading ability
3. Mechanical aptitude
4. Mathematical ability
5. The student's plan for education in the future
6. What do his parents want him to do
7. What are his hobbies
8. What his father does to earn a living
9. Attitude of parents toward education
10. Student's attitude toward education
11. Physical defects
12. School marks in various classes

The above information is the type we need to collect in order to describe the type of student for whom we want to make our training program effective.

Some of the questions we need answered are:

1. Who should be placed in a specific training program?
2. What are the chances of the student succeeding in the training program?
3. Where should training begin?
4. Has the training been adequate?
5. Does the student have the knowledge and ability to get a job?
6. What training does the student need after getting the job, to advance?
7. Why did he succeed or fail?

The follow-up of the student's education or work experience should be a continuous process. By checking up on former students, we learn of their problems, successes, and failures, and we obtain the students' suggestions for school program improvement. Educational experiences may be altered in line with results of the follow-up studies.

Placement

Placement is the satisfactory adjustment of the student to the next situation, whether it is on a job or in the school. It is the referring of young people to job opportunities in accordance with their aptitudes, skills, abilities, and interest.

Because of the educational and vocational knowledge needed for effective placement, formal relations must be established between government, school, industry, and various private and public agencies.

The purposes are:

1. To assist the student in choosing and obtaining a part-time job in keeping with his interests and abilities.
2. To assist the student in the personal adjustment problems he will meet as a new worker.
3. To assist the student in getting additional training relative to his job and thus increase his work progress.

Co-ordination

The guidance program should be co-ordinated with and supplemented by an expanded community program, and all should be co-ordinated with community interests such as governing offices, businesses, industry, and labor.